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BLUE JAY

December 1998



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EDITOR'S MESSAGE

On behalf of Nature Saskatchewan, the Associate Editors and myself, I would like to thank Margaret Belcher and Bob Nero for their support as Associate Editors. As I have consulted past Blue Jays I have developed an understanding and respect for how much these two people have contributed to the magazines success. They have asked to be relieved of their formal duties; a retirement that is well deserved. I am delighted to report, however, that both have agreed to retain their ties with Blue Jay. They will contribute, as they have done in the past, when the occasion demands their special talents. For me as editor it is important to have advisors who have a long history with Blue Jay. I want you all to take any opportunity to thank these individuals personally for the dedication, work, support and unfailingly cheerful advice they have given to Blue Jay editors, past and present.

Over the months I have had numerous questions on when submissions get published. After I receive material, I either load it into my computer or place it in a pile for typing. Once I have an electronic copy (much of my correspondence is by e mail) I send it off for review. Most reviewers return their comments within a few weeks, although some take a little longer. I then send a paraphrased version (reviewers remain anonymous) off to the author for comment or change. Once the submission is satisfactory I place it in the electronic version of the next issue. I try to get a balance of material - something on birds, plants, mammals and other - and produce an oversize issue. Once in final form, I use the grammar and spell check systems to proof the contents. I then print a draft - usually about 65 to 70 pages. This is manually proofed by my wife and me and, the marked up copy then goes to an independent reviewer. I rotate this job among several local people (Doug Collister, Don Stiles, Gus Yaki, Bill Walker and Howard Troughton are among those to be thanked for this essential help). After I get it back, I make all the corrections and print a second draft. This I proofread again. This draft goes to the printer and the contents page is coded. Articles that must be in the issue are given three stars. This includes time-sensitive material, notices, articles that have "seniority" and ones that provide balance. Articles that could be held over are given two stars and ones that have no time sensitivity are marked with one star. The publisher gets this hard copy and an electronic version. He uses the stars to aid in formatting the journal into its two-column format. Our objective is to put out a 64-page issue each time. Anything that gets cut becomes a three star item for the next issue. I also send additional material to be used whenever a partial white page becomes available. This includes photos, short notes and poems. This process lasts one to four months, depending on when the article arrives, whether or not it is in electronic format and how long the review takes.

In the last issue the cover photo credit should have read "Western Painted Turtles, by W.H. Koonz."

Roy John

BIRDS

BIRD OBSERVATIONS FROM NORTHERN SASKATCHEWAN, AUGUST 1973

WAYNE E. RENAUD, 9 Oakwood Avenue, N. Mississauga, ON L5G 3L6

The first organized study of the birds of northern Saskatchewan, was conducted by Nero³. While concentrating on the Lake Athabasca area of northern Saskatchewan, preliminary visits were made to Stony Rapids and Black Lake (1960 to 1962) and Hasbala Lake (27 July to 3 August), the most northeasterly lake in Saskatchewan. From 1963 to 1965, Nero focused his studies on the lichen woodlands and muskegs to northeastern Saskatchewan: 26 June to 31 July 1963 (Stony Rapids/Black Lake), 9-29 July 1963 (Hasbala, Patterson and Warren Lakes), 1-14 July 1964 (Milton Lake and Porcupine Rivers); 18-24 July 1964 (Charcoal Lake); 20 April to 8 July, 1964 (Wollaston Lake), and 27 June to 27 July 1965 (Reindeer Lake)⁴. Later, in 1977, studies by Secoy and Maw were undertaken from 28 May to 16 August at Boland Lake, Higgins Lake, Nekweaga Bay at the southern tip of Wollaston Lake: they recorded an impressive total of 77 species⁶. To date, these appear to be the only published work based on long-term ground-based ornithological research programs, from this, the most remote and least accessible area of Saskatchewan.

In the summer of 1973, the author and John Rowe, Jr. embarked on studies of rare and representative plant ecosystems in Saskatchewan. These studies were part of 'The International Biological Program'[IBP] which were

funded through the Department of Plant Ecology, University of Saskatchewan, Saskatoon and conducted under the supervision of Dr. J.S. Rowe. Three 'IBP' sites were located in the extreme northern and northeastern areas of the province, and within the study area of 'The Birds of Northeastern Saskatchewan'. These unpublished records were made from 8 to 24 August 1973.

Although the documentation of birds was not the focus of our study, I diligently recorded all the birds which were observed during our visit. The records of birds presented here were made in the following areas: Lefty Falls and Stony Rapids on the Fond du Lac River (59°-16'N; 105°-50'W), Fir Island/Black Lake (59°-11'N; 105°-25'W), Elizabeth Falls/Fond du Lac River (59°-03'N; 105°-33'W), Bonokoski Lake (59°-44'N; 103°-22'W), and Hara Lake (59°-05'N; 102°-03'W) [Figure 1]. At Bonokoski Lake and Hara Lake, research was done both on foot and by canoe (approx. 50% each). We portaged onto adjacent lakes, ponds and calmer, wider areas of water. The absence of groups of tall trees and shrubs gave us excellent views of distant bodies of water; hence the bias towards more observations of water-related bird species. At Fir Island, the largest island on Black Lake, most observations were made along the water-edges, with brief trips into the intermittent evergreen forests and muskegs of the interior.

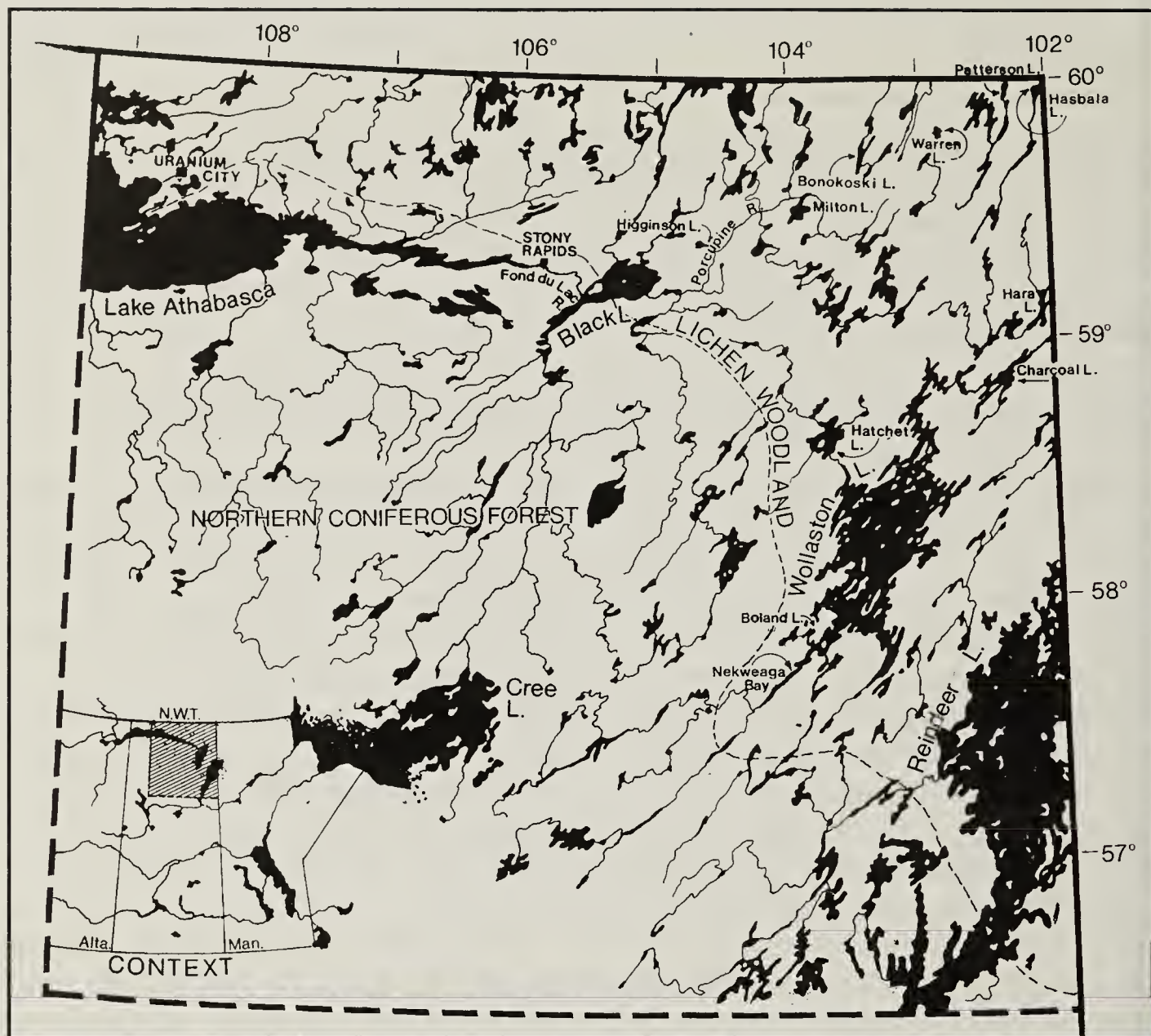


Figure 1 - Wayne Renaud

Neither Bonokoski Lake nor Hara Lake was visited by Nero^{3,4}. All areas visited during this study are located within the 'sub-Arctic avifauna' zone and within the 'Lichen Woodland' vegetation zone. Forty-eight species were recorded during our visit⁴.

Significant breeding records are presented here for Common and Red-breasted Mergansers, Ring-necked Duck, Bufflehead, Black Scoter and Arctic Tern. Observations of Osprey, Rough-legged Hawk and Red-breasted Nuthatch further clarify the status of this species in this area.

Abbreviations used in the following species accounts: ad=adult; y=flightless young; imm=flying juvenile; yr=year;

Ag=August; date format: Ag 15=month, day.

SPECIES LIST

Common Loon

Hara Lake [2, 1ad + 1y, 3 = 7—Ag 16; 1ea—Ag 14, 15, 17 and 18; flock of 5—Ag 19]

Canada Goose

Black Lake/Fir Island [flock of 15—Ag 14]; Bonokoski Lake [flock of 76—Ag 20]

Mallard

Black Lake/Fir Island [1 female—Ag 9]; Elizabeth Falls [1 female—Ag 10].

Ring-necked Duck

Hara Lake [1 female—14—15 Ag; one

group of 8 females + 18 flightless y—Ag 16). Nero cites two June records for Wollaston lake with no direct evidence of breeding; both Godfrey and Smith show the nearest confirmed breeding record for central Reindeer Lake 200 km to south^{4,2,6}.

Lesser Scaup

Hara Lake [1 female + 8 flightless y—Ag 16]. Godfrey indicated that the southwestern edge of the breeding range of the Greater Scaup is located on the 60th parallel of latitude (the N.W. T. border), a mere 30 km north of the north end of Bonokoski Lake². Great care was taken to correctly identify this female scaup, because of the possibility of recording greater Scaup nesting in this area. No greater Scaup were identified by Nero, but he did record “Lesser Scaup” and scaup species in most areas visited, and all these accounts are listed together under ‘Lesser Scaup’. To date there appear to be no confirmed breeding records of Greater Scaup for Saskatchewan (Smith).

Surf Scoter

Hara Lake [1 female with six flightless young—Ag 16]; carefully watched for 20 minutes at distances down to 20m with full front lighting. Identifying field marks included the two strong white spots on sides of the dark head of the female and young, and the lack of a white patch on the female when she fluttered her wings. Nero recorded two females at Hasbala Lake on 29 July 1962 and found them to be common breeders in Lake Athabasca area³. Between 9 and 14 July 1963, Nero cited three observations of this species: two females together, a mated pair, and a female behaving as though it had a nest nearby—but with no definite breeding record for Hasbala Lake. In other areas of northern Saskatchewan Nero provided scattered records of Surf Scoters, some of which were exhibiting

breeding behaviour: Stony Rapids, Black Lake, Milton Lake, Wollaston Lake and Reindeer Lake^{3,4}. Secoy and Maw recorded two broods at Boland Lake on 6 and 8 on July 5, 1977. Smith cited confirmed breeding records only for Reindeer and Southern Wollaston Lakes. The latter location, 180 km southwest of Hara Lake (presumably referring to Secoy and May’s two records), is the nearest location of a definite breeding record⁵. This Hara Lake breeding record thus represent one of only five verified breeding records for all of northeastern Saskatchewan⁷.

Bufflehead

Hara Lake [1 female +6y—Ag 16]. Nero recorded a brood at Hasbala Lake 110 km due north near the boundary of Manitoba and N.W.T⁴, Smith acknowledges Nero’s record, as well as citing additional confirmed records of breeding for southern Reindeer Lake, central Wollaston Lake, and Little Gull Lake south of Lake Athabasca^{3,6}. This current record fills the gap in between these four breeding areas in northern Saskatchewan.

Common Merganser

Black Lake [1 female + 6 y—Ag 15; female + 5y—Ag 16]. Nero cites one breeding record for the area between Stony Lake and Woodcock Rapids. These may be the first confirmed breeding records for Black Lake⁴.

Red-breasted Merganser

Elizabeth Falls [group of 5 males; 1 female +8 flightless y—Ag 10]; Hara Lake [1 female with 6 flightless y—Ag 16]. Nero recorded this species in most lakes surveyed but with no definite breeding records; he, does however, cite one nest record in Buchanan for Reindeer Lake [from July 12, 1914—overlooked in Smith]^{4,1,7}. However Smith cited what appears to be a confirmed breeding record for Hatchet Lake, 110

km southeast of Hara Lake⁷. Secoy and Maw, recorded them on Boland Lake, southwest of Wollaston Lake, but with no evidence of breeding⁶. This Hara Lake record is likely, then only the second confirmed breeding record for northeastern Saskatchewan.

Osprey

Black Lake-Fir Island [1—Ag 9]; Hara Lake [1—Ag 15]. Nero, on August 1, 1962, recorded a single bird at Hasbala Lake; however, none was observed there during 21 days of observations in 1963³. Secoy and Maw cited four records for the southern Wollaston Lake region⁶. This Hara Lake sighting may provides the second record for extreme northeastern Saskatchewan.

Bald Eagle

Bonokoski Lake [1 ad—Ag 15].

Sharp-shinned Hawk

Stony Rapids [1—24 Ag].

Rough-legged Hawk

Hara Lake [1—Ag 18]. The only definite record for extreme northeastern Saskatchewan was made at Hasbala Lake by Nero: a pair noted 31 July 1962 with reference to potential breeding habitat in nearby cliffs, though no nest was found^{3,4}. Smith interpreted Nero's sighting as a confirmed breeding record, and further suggested that this was the only area in Saskatchewan where the species has nested⁷.

Semipalmated Plover

Stony Rapids [1—24 Ag]. Not recorded by Nero, but a small population nests in the sand dunes south of Lake Athabasca.

Lesser Yellowlegs

Bonokoski Lake [1—Aug 22].

Solitary Sandpiper

Hara Lake [1—Ag 16; calling in flight—

very agitated—then perched on top of a spruce and continued to calling until we left the area fifteen minutes later]. Nero and Secoy and Maw found them to be regular, and likely breeding, in most areas which they surveyed in the northeastern Saskatchewan^{4,6}.

Spotted Sandpiper

Hara Lake [1—Ag 16].

Least Sandpiper

Black Lake/Fir Island [9—Ag 9]; Bonokoski Lake [1—Ag 21].

Baird's Sandpiper

Black Lake/Fir Island [1—Ag 9]. Nero listed two records from Reindeer Lake.

Common Snipe

Stony River [2—Ag 24].

Ring-billed Gull

Black Lake/Fir Island [8—Ag 9].

Herring Gull

Black Lake/Fir Island [10—Ag 9]; Hara Lake 91 first-yr imm—Ag 17-20]; Stony Rapids 93ad + 4 flying imm—4Ag].

Arctic Tern and unidentified terns

White terns were regularly seen during our visit but only two definite identifications were made: Black Lake/Fir Island (3—Ag 8); Bonokoski Lake/Tern Island [colony of 50+ mixed adults and recently-fledged young; the remains of an undetermined number of nests were found on a bare, stony area on highest part of the island; we found one immature tern which was not yet old enough to fly—Ag 22]. Unidentified white terns were recorded as follows: Black Lake/ Fir Island [3 - 4; Ag 9-10]; Hara Lake [6—Ag 15; 2—Ag 16]; Bonokoski Lake [8—Ag 20; 1—Ag 21]; Stony Rapids [5—Ag 24]. Two nearby colonies were documented in Nero⁴. In 1964, his team discovered a colony of 45 pairs on an island in Milton Lake

approximately 32 km southwest of our Bonokoski Lake colony. On July 9, 1963, a group of three pairs were found nesting on a barren ridge at Patterson Lake, approximately 50 km east-northeast of Bonokoski Lake. Nero did not record any Arctic Terns on Black Lake, but did see one flock of four on the Fond du Lac River which flows into Lac Lake⁴. Smith did not acknowledge Nero's sightings from northeastern Saskatchewan as confirmed breeding records, but he cited four other records for extreme northwestern Saskatchewan in the vicinity of Lake Athabasca where Nero found them nesting in 1960 and 1961^{7,3}. Secoy and Maw identified a single bird at Boland Lake at 12 June 1977⁶.

Common Nighthawk

Bonokoski Lake [1—Ag 22]; Lefty Falls/Stony Rapids [20 in flock Ag 23].

Belted Kingfisher

Black Lake [1 or 2 each day from Ag 8—13].

Black-backed Woodpecker

Black Lake/Fir Island [1 female—Ag 10]; Bonokoski Lake [1 male—Ag 20].

Northern Flicker

Hara Lake [1—Ag 15].

Cliff Swallow

Lefty Falls/Stony Rapids [2—Ag 23].

Barn Swallow

Lefty Falls/Stony Rapids [10—Ag 23].

Gray Jay

Black Lake/Fir Island [1—Ag 11 and 12]; Hara Lake [1-3—Ag 16-19]; Bonokoski Lake [1—Ag 21 and 23].

Common Raven

Stony Rapids [4—Ag 9]; Elizabeth Falls [4—Ag 10-13]; Hara Lake [2—Ag 14-17]; Bonokoski Lake [1—Ag 20]; Stony

Rapids [flock of 20 Ag 24].

Boreal Chickadee

Hara Lake [1—Ag 16; groups of two and three—Ag 17 and 18; 1—Ag 20]; Bonokoski Lake [groups of 1 and 3—Ag 21; 4—Ag 22].

Red-breasted Nuthatch

Hara Lake [1—Ag 15 and 16]. Not recorded in Nero^{3,4}. Smith showed the nearest sighting, a possible breeding record, as northern Reindeer Lake, 120 km to the south of Hara Lake⁷. Secoy and Maw found several pairs and groups of up to 5 at Boland Lake from 5 June to 16 July 1977⁶. This Hara Lake sighting represents the most northeasterly record for Saskatchewan.

American Robin

Hara Lake [1—Ag 15]; Bonokoski Lake [1—Ag 22 and 23].

Yellow-rumped Warbler

Black Lake [3—Ag 11]; Bonokoski Lake [1—Ag 20 and 21].

Palm Warbler

Stony Rapids [1—Ag 24].

Blackpoll Warbler

Hara Lake [2—Ag 17].

Northern Waterthrush

Stony Rapids [1—Ag 24].

Savannah Sparrow

Bonokoski Lake [1—Ag 21].

Fox Sparrow

Bonokoski Lake [1—Ag 16].

Lincoln's Sparrow

Black Lake [1—Ag 11]; Hara Lake [1—Ag 17].

White-throated Sparrow

Black Lake [1—Ag 11].

White-crowned Sparrow

Hara Lake[1—Ag 15 and 16].

Dark-eyed Junco

Elizabeth Falls[15—Ag 10]; Hara Lake[1—Ag 13].

Rusty Blackbird

Hara Lake[10—Ag 16]; Stony Rapids[3—Ag 24].

Pine Grosbeak

Hara Lake[groups of 1, 1 and 6—Ag 15].

Common Redpoll

Hara Lake[flock of 50—Ag 14; flock of 100—Ag 15; flock of 10—Ag 16; flocks of 6, 15 and 18—Ag 17]; Black Lake[flock of 6—Ag 20].

Acknowledgements

I thank Robert Wapple, Guy Wapple and Allan Smith for reviewing the initial manuscript and encouraging me to publish these forgotten records.

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Of 77 Common Loons found dead in New England, more than half had died from lead poisoning, and half of these had eaten lead fishing sinkers. Lead sinkers are banned in great Britain and the Environmental Protection agency is investigating whether they should be banned in the United States.

EPISODE OF GREAT GRAY OWLS MATING APRIL 18, 1996, 6:47 P.M. Highway #211.

NANCY BREMNER Box 331, Pinawa, MB. R0E 1L0

My first sighting of a Great Gray Owl was December 29, 1995 on highway #11 near Lac Du Bonnet, Manitoba. I experienced scattered sightings throughout January and February of 1996. March brought a veritable cornucopia of owls. I had never seen so many, in fact. the past two winters of daily travelling between Pinawa and Rennie in the Whiteshell Provincial Park, I'd never seen one.

Almost daily contact with Dr. Jim Duncan at the Manitoba Conservation Centre convinced me to drag my husband out to do the Manitoba annual owl survey in April 1996. We did the owl survey on a small stretch of highway (#211) between Hwy #11 and Pinawa. The survey was done on the evenings of April 7th and April 10th.

We started the owl calls along the lonely stretch of highway about 8:00 p.m.. Before long we encountered and unexpected surprise. We were at first dismayed and then amused, flashing lights tend to do this to law abiding citizens, because there was more interest in our dawdling along the highway by the local constabulary and town folk than the intended targets. You could tell by their facial expressions that the local R.C.M.P. patrols usually did not encounter this type of strange behaviour from the town residents. We had only one sighting and one call during our forays into the cold spring nights.

On April 18, 1996, we were finally experiencing a break from the winter

weather. At 6:30 pm the skies were clear and slightly tinted with pink, as the sun slowly dropped over the edge of the horizon. It was a gorgeous evening but I unfortunately was trapped inside my vehicle hurtling its way down highway #211 from Pinawa to a meeting in Lac Du Bonnet. Overhead a flock of pelicans, flashing white against the blue sky, were sailing their way toward open water on the Winnipeg River near Lac Du Bonnet. My first sighting of this species that season.

Whoa! What's that up ahead? Could it be... yes, a Great Gray Owl sitting in a poplar tree on the south side of the highway. What incredible luck! Now there I sat, 6:47 p.m. with a big grin on my face watching an apparently unconcerned Great Gray sitting on a large balsam poplar limb.

Emboldened by our earlier night survey experience I rolled down the car window and did a few hooo's. The owl returned small sounds while watching me in the car. Suddenly, out of nowhere, another owl swooped in low and presented the first owl with a large vole, and immediately flew away. The female owl initially took the vole in her beak (the male owl gives food gifts to females), but had to grasp the vole with her right foot to reposition it so as to swallow it head first. Afterwards, the female plummeted to the ground, crashing through the snow in the ditch. With a puzzled look, if you can call it that, and much turning of her head she realized she had missed her prey. She then tried

once more by jumping up approximately one half of a meter to the left and behind the original spot and missed again. Here she remained, listening for movement under the snow.

About thirty seconds later the male owl swooped down at an alarming speed with his legs and talons extended. It appeared as if he also was going to try for the unfortunate prey under the snow but to my surprise with talons extended he clasped the female's back from behind.

His ladylove was very nonchalant, pretending HE wasn't there by still observing and listening to the activity under the snow. From the back he moved slightly sideways to get closer. Only then did she finally enter into the spirit of this encounter by flattening down, and moving her fanned tail up and to the left, at which time he moved his tail away and fanned it to the right. Then they "touch" in the cloaca area. During the time of this encounter there was an

absence of vocalization. I dared not blink my eyes because as soon as the "touch" was completed the male flew away as swiftly and as silently as his first approach. The mating process took all of a few seconds to occur.

To illustrate how vulnerable owls are, the male owl flew north directly across the road at the level of my car hood. Great Gray Owls are often victims of car and train collisions. Once again I gave a few more low hooos; the territory call of the Great Gray Owl. The male stared back at me, with a disdainful look and then flew to the northeast into a tamarack stand. meanwhile, the female continued to vocalize, while perched in a tree. She then continued to hunt, gliding silently over the snow covered ditch.

Casting a farewell glance to the owl, I slowly drove toward the sinking sun with one of the most unique experiences, I'll ever have, firmly entrenched in my mind.



Estimates of the peak population of birds for the summer in North America range from 5 to 20 billion.

The total population of Franklin's Gull is estimated to be 700,000 birds.

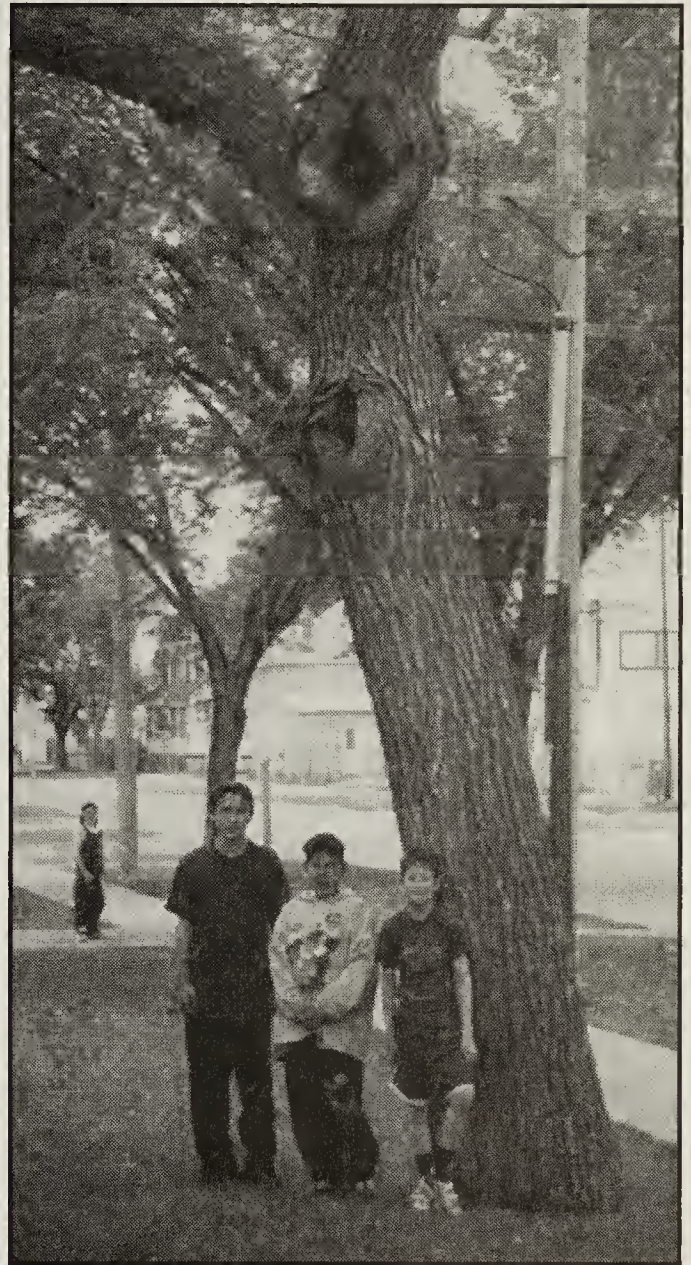
JUVENILE EASTERN SCREECH-OWL DIES EATING A RED-BREASTED NUTHATCH

JAMES R. DUNCAN AND ROBERT W. NERO, Wildlife Branch, Manitoba Natural Resources, Box 24, 200 Saulteaux Crescent, Winnipeg, MB R3J 3W3.

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A high percentage of young birds do not survive their first year of life. Documented first-year mortality rates for juvenile Eastern Screech-owls, for example, range from 64% to 70%; the causes of death in order of decreasing frequency include vehicle collision, shooting, drowning, dog or cat kill, window or wall strikes, trapping, and poisoning.³ Some forms of mortality, e.g., road kills, are more readily observable, compared to natural causes of death. This paper describes a case in which a nearly full-grown juvenile Eastern Screech-owl, found dead near a nest site in a residential area of Winnipeg, apparently died accidentally as a result of attempting to swallow an entire Red-breasted Nuthatch.

Manitoba Natural Resource Officer Denis Ayotte, responding to a call early in the morning of 17 May 1998 about an owl attacking people in a residential area in north Winnipeg, arrived on the scene at 5:15 a.m. This was on McKenzie Street adjacent to Strathcona Elementary School. There Ayotte was met by Winnipeg police officer Don MacLennan, who had received reports of an owl diving at people. While they were talking, the owl dove down and struck Don hard on the back of his bare head. He was not impressed! According to a CBC radio broadcast on 25 May 1998, Robert Keillar, a newspaper delivery man making his early morning rounds on the same street, had been hit by an owl (presumably the same female



Screech-owl nest cavity with students of Strathcona Elementary School, Winnipeg.

- Duncan and Nero

parent) on the back of the head on four different days, the last time sending him to hospital. When asked why he did not start wearing a hard hat to protect himself, Robert replied that he didn't want the owl to get hurt hitting the hat!

On 11 May, Winnipeg Animal Services staff received a call about owls attacking people at this same location. They contacted Tracy Maconachie, whom they knew in connection with Peregrine Falcon monitoring, and she rode with them to identify the problem birds. Upon their arrival at 8:45 p.m., four owls were found perched in a tree across the street from the school. The school caretaker, who told them that children had been throwing stones at the owls, indicated that the nest site was in the elm tree beside the school. Apparently, owls had used this site in previous years. Natural Resources biologist Ron Larche confirmed that he had visited the same area in spring 1996 in response to reports of aggressive owls, which he identified as adult Eastern Screech-owls defending recently fledged young.

N.R.O. Ayotte and the officer observed a quiet family group of owls perched high in a Manitoba maple, and found a dead juvenile owl lying nearby on the street. They were puzzled to see that the dead owl had a dead Red-breasted Nuthatch in its mouth. Ayotte cautioned some young boys about using care in the vicinity of the owls, and mentioned that they were protected birds, then he drove to Nero's house to verify the identity of the owl and to turn it over for study. Ayotte then returned to the site with Nero, arriving in mid-morning. Four juvenile owls and an adult were found still perched closely together in the same tree. A small pellet found by Nero beneath this tree consisted of feathers and a few small bird bone fragments. While they were examining the pellet, two large cocker spaniels ran up and down the street. Three young boys playing on the sidewalk a short distance away, when questioned, identified a large natural cavity opening about 2.5 m high on the north side of an old American elm immediately adjacent to their school as

the owl nest site. This was just across the street from the tree with the family group of owls. All six owls observed were of the grey colour phase. In a study of Screech-owls at Dauphin, Manitoba, it was noted that a male owl used a cavity in a mature elm as a daytime roost, the nest site being a cavity in a maple 30 m away.⁶

It appeared as if the dead owl had choked and died while attempting to swallow the nuthatch, which was an adult male. Accordingly, we went to some effort to see if this could be shown to be the case. We had the owl x-rayed and the next day the thawed carcass was measured, weighed, and then dissected. We found that the 12 mm-long bill of the nuthatch, relatively long for a bird of its size, and sharply pointed, had penetrated 8 mm into the soft tissue at the right back corner of the palate (roof of the mouth), and into the narrow space between the eyeball and the skull. The back of the nuthatch's head was also lodged between the owl's lower jaw bones in such a way that it could not be swallowed or ejected. Indeed, the owl's lower jaw had to be cut on either side to dislodge the nuthatch's head during the dissection. The only other injury we observed was a punctured abdominal cavity near the owl's lower back, possibly the result of the owl being picked up by a dog.

The owl weighed 160 grams, as much as an adult male.³ The presence of testes confirmed that it was a male. The flight feathers of the wing and tail were still growing but the following measurements were recorded: wing chord was 142 mm and tail length was 61 mm. These are below average, but within the range of values for adult Screech-owls measured elsewhere in North America.³

The diet of the Eastern Screech-owl,



Young Eastern Screech-owl with Red-breasted Nuthatch stuck in its mouth.
- Duncan and Nero

the most varied of any North American owl, includes terrestrial and aquatic invertebrates and vertebrates — a 4-kg domestic chicken is the largest prey known to be killed!³ Birds are taken as prey more frequently in cities, especially during migration.^{3, 4} Ground-feeding birds are taken more frequently than foliage feeders, and male birds more often than females, both bird and mammal prey typically being killed or disabled by biting and tugging on the head and neck; often they are partly plucked before being consumed.³ The nuthatch had some feathers missing from its head, neck and breast and its neck was broken; it seems likely that it was dead when the young owl received and attempted to swallow it. The Red-breasted Nuthatch is uncommon in Winnipeg except during migration, spring migration being in late April and May.¹

Two aspects of Eastern Screech-owl behaviour likely resulted in the death of this owl. Screech-owls typically consume bird and mammal prey head first, and hungry owlets can be very aggressive towards each other; up to 64% of cases of brood mortality are due

to siblicide (cannibalism).³ After young leave the nest cavity they can still aggressively compete for food when parents return from a hunting foray with prey. When a young owl receives prey from an adult, it quickly swallows it. Perhaps the owlet we examined did likewise, and in its haste to swallow the nuthatch it inadvertently punctured its mouth with the bill of its intended meal.

It is not certain that the owlet died directly as a result of the puncture. We surmise that the owlet panicked due to this painful injury and its inability to remove the nuthatch, then perhaps fell to the ground and continued its struggle which might have attracted the attention of a dog. The owlet may then have been bitten and carried a short distance before its parent would have attacked the predator in defense of its young. This also could have increased the parent's aggressive behaviour to people at this site. Adult owls have been known to attack the head and upper body region of humans, and have attacked cats, raccoons, and even eastern cottontails that have come within a few meters of an owl nest or roost tree with young owls.²

Regardless of the exact timing and sequence of these events, we conclude that this young owl could not have extracted the nuthatch's head from its mouth. Thus, this paper documents an unusual accidental cause of death for a juvenile Eastern Screech-owl resulting from the consumption of avian prey. Screech-owls in Winnipeg seem to lead precarious lives. An earlier report in the *Blue Jay* describes one that apparently died when bitten by a shrew, its intended prey.⁵

Acknowledgements

Rob Mazur and Sonia Langlais of the South Interlake Animal Hospital, Stonewall, kindly took x-rays at cost to assist with this investigation. Denis Ayotte reviewed earlier versions of the manuscript.

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Screech-owl

Doug Gilroy

PLANTS

A PRELIMINARY FLORAL LIST FOR THE RENDEK ELM FOREST NATURE SANCTUARY IN EAST-CENTRAL SASKATCHEWAN

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One of Nature Saskatchewan's six nature preserves is the Rendek Elm Forest located about 12 ½ km northeast of Erwood (or 25 km east-northeast of Hudson Bay) at the confluence of Smoking Tent Creek with the Red Deer River. It is found at the latitude-longitude coordinants of 52°54'N, 102°01'-02'W, and the survey coordinants of SW¼ Sec. 25 and E edge of SE Sec. 26, Twp. 45, Rge. 01, W 2nd M.

We have noted Nature Saskatchewan's expressed interest in compiling bioinventories of their various nature sanctuaries (Nature Views, #114, Spring-Summer 1998, p. 13). This is a worthwhile objective with which we whole-heartedly concur. Also noted was their request for volunteers to help document the plants and animals at any of these sites. As a contribution towards this goal, we wish to report on a plant collection made on 9 July 1981 at one of these nature preserves - the "Rendek Elm Forest" - by the present authors along with Donald Hooper and Patricia Sky.

Recorded from this site at that time were 52 species of vascular plants, belonging to 49 genera, in 30 families. Two species were pteridophytes (i.e. free-sporing plants), with the rest being angiosperms (i.e. flowering plants). The

following four recorded species have been assigned a provincial rarity status: Blue Monkey-flower (*Mimulus ringens*), Nodding Trillium (*Trillium cernuum*), Assiniboia Sedge (*Carex assiniboinensis*), and Red Elderberry (*Sambucus racemosa* ssp. *pubens*). All records were documented by voucher specimens mounted and filed in the Fraser Herbarium (SASK) at the University of Saskatchewan.

The species found are listed below in alphabetical order of their scientific names under their respective families, which in turn are alphabetically arranged. The species' scientific names are followed by their authors, pertinent synonyms (if any), common name(s), and a brief, single-word, general habitat descriptor. The primary general habitat (indicated as "woods") is an extensive, moist, flood-plain woods with the canopy dominated by American Elm and Manitoba Maple, and with a lush herb layer largely dominated by dense Ostrich Ferns. A second general habitat type (indicated as "bank") is the more limited extent of open to semi-open, gravelly river-bank. A third general habitat type (indicated as "shoreline") is the marsh-edged, river shoreline. Of the 52 species recorded by us at the Rendek Elm Forest site, 32 were from

the woods", 15 from the "bank," and 5 from the "shoreline" habitat types present there. For the four rare plants, the provincial rarity status assigned to them by the Saskatchewan Conservation Data Centre is added in parentheses.

With our botanizing at the site for only a few hours of one day, this represents a quite preliminary survey. A more intensive floristic inventory, continued over the entire growing season, would no doubt increase the species' list to perhaps double, if not even to three or four times the number listed here.

Our July 1981 visit and preliminary botanical survey of the Rendek Elm Forest site probably had a historical significance beyond the plants recorded, since it, along with other visits made by him, inspired one of our participants, Donald Hooper, to propose the area to the Hudson Bay Regional Park and Nature Saskatchewan for protection as a nature sanctuary.

SPECIES LIST

Aceraceae (Maple Family):

Acer negundo L.; MANITOBA MAPLE, BOX-ELDER. Woods. (A codominant tree.)

Alismaceae (Water-plantain Family):

Alisma plantago-aquatica L. var. *americana* Schultes and Shultes; BROADLEAF WATER-PLANTAIN. Shoreline.

Sagittaria latifolia Willd.; BROAD-LEAVED ARROWHEAD. Shoreline.

Apiaceae (Umbelliferae) (Carrot Family):

Heracleum lanatum Michx.; COW PARSNIP. Bank.

Osmorhiza longistylis (Torr.) DC.; SMOOTH SWEET CICELY. Woods.

Apocynaceae (Dogbane Family):

Apocynum cannabinum L. var. *hypericifolium* Gray [*A. sibiricum* Jacq.]; INDIAN HEMP; CLASPING-LEAF DOGBANE. Bank.

Aspleniaceae (Spleenwort Family):

Matteuccia struthiopteris (L.) Todaro; OSTRICH FERN. Woods. (A predominant understory forb.)

Asteraceae (Compositae) (Aster Family):

Antennaria parvifolia Nutt.; LOW or SMALL-LEAF PUSSYTOES. Bank.

Erigeron philadelphicus L.; PHILADELPHIA FLEABANE. Woods.

Eupatorium maculatum L.; SPOTTED JOE-PYE WEED. Bank.

Helenium autumnale L. var. *montanum* (Nutt.) Fern.; SNEEZEWEED. Woods.

Rudbeckia hirta L. var. *pulcherrima* Farw. [*R. serotina* Nutt.]; BLACK-EYED SUSAN. Bank.

Brassicaceae (Cruciferae) (Mustard Family):

Erysimum cheiranthoides L.; WORMSEED MUSTARD. Woods.

Cannabinaceae (Hemp Family):

Humulus lupulus L.; COMMON HOP. Woods.

Caprifoliaceae (Honeysuckle Family):

Sambucus racemosa L. ssp. *pubens* (Michx.) Hulten; RED ELDERBERRY. Woods. (S3).

Symphoricarpos albus (L.) Blake; NORTHERN SNOWBERRY. Woods.

Viburnum edule (Michx.) Raf.; LOW BUSH-CRANBERRY. Woods.

Viburnum opulus L. ssp. *trilobum* (Marsh) Clausen; HIGH BUSH-CRANBERRY. Woods.

Caryophyllaceae (Pink Family):

Cerastium nutans Raf.; LONG-STALKED CHICKWEED. Bank.

Stellaria longifolia Muhl.; LONG-LEAVED CHICKWEED, STARWORT or STITCHWORT. Woods.

Convolvulaceae (Morning-glory Family):

Convolvulus sepium L.; HEDGE BINDWEED; WILD MORNING-GLORY. Bank.

Cyperaceae (Sedge Family):

Carex assiniboinensis Boott; ASSINIBOIA SEDGE. Woods. (S2).

Carex retrorsa Schwein.; TURNED or

RETROSE SEDGE. Woods.

Scirpus validus Vahl.; GREAT BULRUSH. Shoreline.

Equisetaceae (Horsetail Family):

Equisetum arvense L.; COMMON or FIELD HORSETAIL. Woods.

Grossulariaceae (Currant Family):

Ribes americanum Mill.; WILD BLACK CURRANT. Woods.

Hippuridaceae (Mare's-tail Family):

Hippuris vulgaris L.; MARE'S-TAIL. Shoreline.

Juncaceae (Rush Family):

Juncus nodosus L.; KNOTTED RUSH. Bank.

Lamiaceae (Labiatae) (Mint Family):

Lycopus americanus Muhl.; CUT-LEAF WATER-HOREHOUND. Woods.

Mentha arvensis L.; WILD MINT. Woods.

Stachys palustris L. ssp. *pilosa* (Nutt.) Epling.; MARSH HEDGE-NETTLE. Bank.

Liliaceae (Lily Family):

Smilacina stellata (L.) Desf.; STAR-FLOWERED SOLOMON'S-SEAL. Woods.

Trillium cernuum L.; NODDING TRILLIUM or WAKE-ROBIN. Woods. (S2/S3).

Onagraceae (Evening-primrose Family):

Circaea alpina L.; ENCHANTER'S NIGHT-SHADE. Woods.

Oenothera biennis L.; YELLOW EVENING-PRIMROSE. Bank.

Poaceae (Gramineae) (Grass Family):

Glyceria grandis Wats.; TALL MANNA-GRASS. Shoreline.

Poa palustris L.; FOWL BLUE-GRASS. Woods.

Polygonaceae (Buckwheat Family):

Rumex triangulivalvis (Dans.) Rech. f. [*R. mexicanus* Meisn.; *R. salicifolius* Weinm.]; NARROW-LEAVED or WILLOW DOCK. Bank.

Primulaceae (Primrose Family):

Lysimachia ciliata L.; FRINGED LOOSESTRIFE. Woods.

Ranunculaceae (Buttercup Family):

Actaea rubra (Ait.) Willd.; BANE BERRY.

Woods.

Anemone canadensis L.; CANADA ANEMONE (or WIND-FLOWER). Bank.

Ranunculus abortivus L.; SMALL-FLOWERED CROWFOOT or BUTTERCUP. Woods.

Ranunculus macounii Britt.; MACOUN'S BUTTERCUP. Woods.

Thalictrum dasycarpum Fisch. & Lall.; TALL MEADOW-RUE. Bank.

Rosaceae (Rose Family):

Prunus virginiana L.; CHOKE-CHERRY. Woods.

Rubiaceae (Madder Family):

Galium triflorum Michx.; SWEET-SCENTED BEDSTRAW. Woods.

Salicaceae (Willow Family):

Salix exigua Nutt. [*S. interior* Rowlee]; SANDBAR WILLOW. Bank.

Scrophulariaceae (Figwort Family):

Mimulus ringens L.; BLUE MONKEY-FLOWER. Bank. (S1).

Veronica americana (Raf.) Schw.; AMERICAN SPEEDWELL. Woods.

Ulmaceae (Elm Family):

Ulmus americana L.; AMERICAN ELM. Woods. (A dominant or codominant tree.)

Urticaceae (Nettle Family):

Urtica dioica L. ssp. *gracilis* (Ait.) Seland. [*U. gracilis* Ait.; *U. procera* Muhl.; *U. lyallii* S. Wats.]; STINGING NETTLE. Woods.

Violaceae (Violet Family):

Viola rugulosa Greene. [*V. canadensis*]; WESTERN CANADA VIOLET. Woods.



Western Canada Violet G.H.Hardy

RED SQUIRREL OBSERVED ACTIVE AT NIGHT

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The red squirrel (*Tamiasciurus hudsonicus*) is a widely distributed species of the Sciuridae family in North America. It is a non-migratory, diurnal, terrestrial mammal which occurs in forested habitats from Alaska to Arizona, through some of the mid-western United States and down to North Carolina. With the exception of the extreme northern regions, red squirrels range throughout all of Canada, up to the Northwest Territories and east to Labrador.¹

I live-trapped hares and small mammals in four vegetation communities on Long Point, Manitoba in fall (September-October) over a 20 year period (1971-1991).² Traps for hares were baited with apples, closed during the day, and set an hour or so before sunset to reduce the risk of catching red squirrels (red squirrels caught in the evening typically died overnight). More than 8000 hare trap-nights (100 traps X 4 nights X 20 years) were included during the study. Finding dead red squirrels in live traps was rare, however, the numbers caught increased as the trap checks progressed into the mornings. Over all those years I never heard of saw red squirrels much after sunset or before sunrise.

Red squirrels typically have a bimodal activity period (early morning and afternoon) in the summer and a single active period (during the warmest part of the day) in winter.³

Banfield states that red squirrels are "strangely active on moonlight nights in late summer." I observed no evening red squirrel activity or captures during moonlit nights at Long Point in September-October. Peterson⁴ states that "the activity of the red squirrel begins with the first light of day and sometimes continues into the night, although it is usually diurnal".

On 11 March 1998, to my surprise, I heard a red squirrel calling at 10:20 pm CST near a house in urban Winnipeg, Manitoba. It was a cloudy, windy (15-25km) and cold night (-16°C), one day before a full moon. As I approached the sound, I noticed that there were several mature blue and white spruce trees next to the house. There was a light on (about 60 watts) over the front door of the house, another light on the front of the garage (about 60 watts) was on and a spotlight (at least 100 watts) was shining upward toward the trees. There was a house cat sitting on the ground below the trees, looking upward toward where the squirrel was calling. I observed the scene for several minutes before continuing my walk. As I retreated, the calling continued at least until I could no longer hear it.

It is possible that the light had stimulated the squirrel to be active at night and the cat was attracted to the squirrel; or perhaps, the cat had disturbed an otherwise inactive squirrel.



Red Squirrel

C. Adam

Whatever the cause, it is clear that red squirrels are plastic enough to potentially become active at night at least in lit environments. This factor, over time, may affect their range and/or their activity patterns. The observation was so far from what I had experienced that I thought it worth reporting. It will be interesting to see if this brief note elicits other observations of red squirrel nocturnal activity.

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THE RADIATING MOUSING TECHNIQUE OF THE STRIPED SKUNK

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The striped skunk is a mammal well known for its conspicuous black and white coloration and powerful chemical defense system. In Saskatchewan, the Striped Skunk (*Mephitis mephitis*) is also known for inhabiting farm buildings, and raiding the nests of local ducks.^{1,2,3} Although duck eggs are frequently part of the skunk's menu during the waterfowl nesting season, the largest part of the diet of a skunk comes from insects and small mammals such as voles and mice⁴.

Very little is known about the hunting behaviour of Striped Skunks. Unlike weasels, Striped Skunks do not possess the long tubular morphology necessary to access rodent burrows, and lack the ability to perform aerial jumps that the Red Fox exploits in catching small mammals. During an intensive study of the ecology of Striped Skunks around Redberry Lake, Saskatchewan, I had the opportunity to observe, using night-vision equipment, numerous Striped Skunks foraging under the cover of darkness. Other than the main goals of the study 5, one of the most interesting behaviour observed was the radiating mousing technique of Striped Skunks. One instance in particular stands out in my mind.

At 18:30 on July 28, 1993, I located "Pépé", a healthy male whose home range was located 6 km northwest of Krydor, Saskatchewan. Pépé was



Skunk

Lorne Scott

sleeping above-ground in the tall grass of a wetland of ca. 1 ha in size. Pépé became active around 19:00, and immediately started foraging around the wetland. The sky was clear and I kept the slight breeze in my face to prevent being detected by the skunk. At 20:14, Pépé dug up a small mammal nest (either mice *Peromyscus* or voles *Microtus*, hereafter referred to as mice)

along the wetland periphery. During this first incident, I could see the skunk clearly but I was too far (i.e., 15 m away) to hear whether mice were caught or not.

At 20:30, I accidentally approached to within 2 m of the foraging skunk because of the tall wetland grass. As soon as I saw the skunk, I froze. I could hear the skunk "sniffing" intensively for prey in the tall grass. At 20:31, the skunk discovered another active mouse nest 2 m in front of me. This time, I distinctly heard a number of mice run away from the nest squeaking. P  p   quickly ran down the first mouse and I heard him chewing the mouse as it was squeaking. What followed next is what surprised me. Instead of running around trying to locate more mice, P  p   systematically came back to the nest location, picked up another trail (presumably by smell), and followed it for 1.5 m until the mouse that made the scent trail was captured. Capture was easily recognized by the sudden sounds of the squeaking mouse and the chewing noises of the skunk, accompanied by the sound of small bones breaking and the termination of the squeaking. P  p   once again came back to the nest, picked up another scent trail, followed it, and caught a third mouse, this time 2 m from the nest. Then, it came back to the nest, sniffed around, and resumed foraging in a zig-zag pattern along the wetland. The whole incident lasted from 20:31 to 20:39, and resulted in the capture and consumption of at least 3 mice.

At 20:56, another mouse nest was discovered and the same scenario was repeated. This time, a minimum of two mice were captured by the skunk using this "radiating" mousing technique. The second incident lasted 3 minutes total, after which the skunk resumed foraging in the wetland.

At 21:05, a third mouse nest was

discovered but I was further away this time and could not see or hear clearly whether mice were captured. P  p   became inactive above-ground in a canola field at 21:15.

In the prairies and elsewhere, Striped Skunks spend a large proportion of time foraging along wetlands.^{5,6} In such habitat, the vegetation is usually tall and dense, and hunting by vision is very limited. Furthermore, striped skunks have poor visual abilities, but excellent sense of smell and hearing.^{7,8} Thus, the smell of an undisturbed nest may be strong enough to be detected by a foraging skunk, especially if small mammals are the primary prey and skunks develop olfactory search images.⁸ Furthermore, by being active at night when prey are also most active, striped skunks enhance their chances of encounter with moving prey, which are then more likely to be detected by audition and olfaction.⁹

Striped Skunks concentrate their activities where prey are abundant. In the parklands of Saskatchewan, wetlands and abandoned farmsteads are the two habitats preferred by Striped Skunks because of the high abundance of insects and small mammals, and also because they may provide skunks with other occasional food items such as amphibians, reptiles, and bird nests. Nonetheless, tall vegetation is the norm in these habitats and Striped Skunks must rely on olfaction rather than vision to locate prey. This radiating mousing technique illustrates how the Striped Skunk, a generalist predator, can use its olfaction for capturing small mammals. Striped Skunks may not be specialized mousers like the Red Fox or weasels, nonetheless, they too have figured out an efficient way to cash in on the abundant food source that small mammals constitute.

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Barred Owl nestlings

David G. Miller

INSECTS

FLEAS GATHERED FROM MAMMALS COLLECTED ON THE MCINTYRE RANCH OF SOUTHERN ALBERTA

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Introduction

The flea fauna of Alberta is well known with respect to the species that occur, and their distribution. This is due to the work of a number of people especially G. P. Holland. His published work, *The Fleas of Canada, Alaska and Greenland (Siphonaptera)*, is the basis for most of our knowledge of fleas of this area.² There are, however, areas of the province that have not been surveyed. Small regional studies provide information that will allow for a better understanding of the distribution of this group of animals. Biodiversity is the current catch-phrase for many ecological studies today. However, such studies typically concentrate on only a selected segment of the flora or fauna of an area, such as the birds or mammals or flowering plants or trees. An examination of the ectoparasites of these life-forms is seldom undertaken even though the effects of parasites on their hosts may be substantial. With this in mind, I examined specimens of mammals for ectoparasites. Specifically fleas that were collected as a part of a biological survey of the McIntyre Ranch by the Provincial Museum of Alberta. Unfortunately, I was not able to examine all the specimens. In total, 212 mammals representing 20 species were collected in three years.¹ For a complete description of the McIntyre Ranch see the report "A Bioinventory of McIntyre Ranch: An Extensive Fescue-Dominated

Grassland in Southern Alberta", edited by W. B. McGillvray and M. Steinhilber, prepared by the Provincial Museum of Alberta, Edmonton.³

Briefly, the McIntyre Ranch is located in southern Alberta, 16 km south of Magrath and occupies 87 sections of land on the Milk River Ridge. The mammalian fauna was surveyed in 1990, 1991, and 1993. The fleas discussed in this note were obtained from mammals collected in 1990. Prior to being prepared in the Museum, the hair of a specimen was examined for fleas. All fleas collected were preserved in alcohol for later preparation and identification. The fleas were cleared and mounted on microscope slides and are stored in the entomological collection of the Provincial Museum of Alberta. Identifications were made using the keys in Holland.² The names used are also from that publication.

Species List

Cediopsylla inaequalis inaequalis
(Baker)

Specimens collected: 21 females 15 males

This is a western North American flea that is associated with cottontails and hares. Two Nuttall's Cottontails (*Sylvilagus nuttallii*) were collected on the McIntyre Ranch. All the fleas

collected were obtained from one cottontail. Holland² indicated that the range of this flea in Alberta extends west to Waterton Lakes National Park. The location of the McIntyre Ranch is within this range.

Catallagia decipiens Rothschild

Specimens Collected: 1 female 1 male

This is a common and widely distributed flea in Alberta². It has also been found on a variety of hosts. On the McIntyre Ranch, only two specimens were collected, one from a Deer Mouse (*Peromyscus maniculatus*) and one from a Meadow Vole (*Microtus pennsylvanicus*). The locality records, Anderson Lake and Pothole Creek, are within the range of this species as outlined by Holland².

Epitedia wenmanni wenmanni (Rothschild)

Specimens Collected: 1 female 1 male

This is another common and widely distributed flea in Alberta². It is also found on a number of hosts. In this study, the specimens were collected at Anderson Lake and Pothole Creek from a Deer Mouse and a Meadow Vole. Anderson Lake and Pothole Creek are localities not reported by Holland².

Rhadinopsylla fraterna (Baker)

Specimens Collected: 1 male

This flea is found on a number of hosts but is essentially closely associated with Richardson's Ground Squirrel (*Spermophilus richardsonii*). Bryant¹ listed the Richardson's Ground Squirrel as abundant at McIntyre Ranch but only three specimens were collected and none provided any fleas. The flea specimen referred to here was obtained

from one of two Sagebrush Voles (*Lagurus curtatus*) that were collected on the Ranch.

Myodopsylla insignis (Rothschild)

Specimens Collected: 14 females

This is a common flea of bats². At McIntyre Ranch, 12 Little Brown Bats (*Myotis lucifugus*) were collected, five were found to harbour this flea. The number of fleas per bat ranged from 1 to 5. The bats roosted in a bunkhouse on the Ranch property¹.

Myodopsylla gentilis (Jordan and Rothschild)

Specimens Collected: 2 females and 3 males

In Alberta, this flea is considerably less common than the previous species². Like that species, it is closely associated with the Little Brown Bat. Holland² expressed a caution about distinguishing this species from *Myodopsylla insignis* on the basis of females. He did, however, indicate that the males of each species were readily separable.

Ondontopsylla dentatus (Baker)

Specimens Collected: 1 male

Nuttall's Cottontail is the exclusive host for this flea². Besides the record listed here, there are only two other reports for this flea from Alberta². It is considered rare in Alberta. The locality record is Pothole Creek, a locality not recorded by Holland².

Monopsylla wagneri systaltus (Jordan)

Specimens Collected: 2 females 9 males

A variety of rodents host this common flea² but the Deer Mouse is a favoured host in Alberta. On the McIntyre Ranch, si Deer Mice were found to harbour this flea. The number of individual fleas per mouse ranged from 1 to 3. Specimens were collected from Anderson Lake and Pothole Creek, neither locality was reported by Holland².

Megabothris asio megacolpus (Jordan)

Specimens Collected: 1 male

Holland² shows this species to be widely distributed in Alberta. Although closely associated with the Meadow Vole, large numbers have not been collected. On the McIntyre Ranch, the specimen referred to here was collected from near Pothole Creek from a Meadow Vole.

Malaraeus telchinus (Rothschild)

Specimens Collected: 4 females 2 males

This is an uncommon or rare flea in Alberta². Prior to this collection, it had been reported from only one other location in Alberta. On the McIntyre Ranch, this species was collected at two sites: from a Deer Mouse at Pothole Creek and from a Sagebrush Vole from East Pothole Creek. Holland² does not include this area is his list of locales nor does he include either the Deer Mouse or the Sagebrush Vole as hosts in Alberta.

Oropsylla rupestris (Jordan)

Specimens Collected: 1 female 1 male

Holland² indicates that the Richardson's Ground Squirrel is the principal host for this common flea. During the current study only three Richardson's Ground Squirrels were collected and none was examined for ectoparasites. The

specimens reported here were both from one Deer Mouse that was collected along Pothole Creek.

Discussion

Although this is an extremely small survey of fleas from a very small area in Alberta, some interesting observations were made. A total of 81 flea specimens representing 11 species was collected. Holland is, at present, the definitive text for the distribution of fleas in Canada.² All locality records for the McIntyre Ranch are new records not reported in Holland.² Of the 11 species of fleas discussed above, two species (*Ondontopsylla dentatus* and *Malaraeus telchinus*) are considered rare or uncommon by Holland.² Two species (*Myodopsylla insignis* and *Myodopsylla gentilis*) are restricted to bats. The two most commonly collected mammals on the McIntyre Ranch (Deer Mouse and Meadow Vole) were also found to be host to the most flea species. Five flea species were found on Deer Mice and three species of fleas were found on Meadow Voles. It is unfortunate that many mammal collectors do not take the opportunity to examine their specimens for ectoparasites. I know from personal experience that this is one aspect of biological surveys of mammals that is sorely lacking. If a more concerted effort was made to collect ectoparasites when the opportunity presents itself our knowledge of these interesting and important animals would be greatly increased.

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Young Merlin

Clearwater Lake Prov. Park, MB

THE DINOSAURS AND THEIR WORLD: A READING GUIDE

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The first book to be devoted to dinosaurs was W.E. Swinton's *The Dinosaurs*, published in 1934. Until the 1950's, there were few other books devoted to these vanished creatures. However, since that time, the volume of literature on them has increased enormously. In April 1998, a single book-selling source listed some 1330 books in print that had "dinosaur" in the title. Many of these works are for children (and usually bad); others are for adults (and most often quite good).

The list that follows is a distillation from this vast literature. In general, it concentrates on books, fiction and poetry being excluded. Works that were good in their time, but are now outdated or inaccessible, and works considered of limited scientific value are also excluded (though many of the latter are enriched by good illustration—the standard of dinosaur illustration is now extremely high).

The section relating to the question of dinosaur extinction, departs from this procedure in that I have included many papers published in scientific journals—simply because the few books are not adequate to properly portray the various concepts of events at the end of the Mesozoic. This is still very much a controverted question.

It is hoped that this brief guide will be of use to naturalists to whom the literature of palaeontology is unfamiliar. Most of the works listed can be borrowed

directly, or obtained on interlibrary loan, from Canada's provincial library systems or are to be found in academic libraries.

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MANAGEMENT

THE N.W.T. WOLF KILL - GHOST OF THE PAST?

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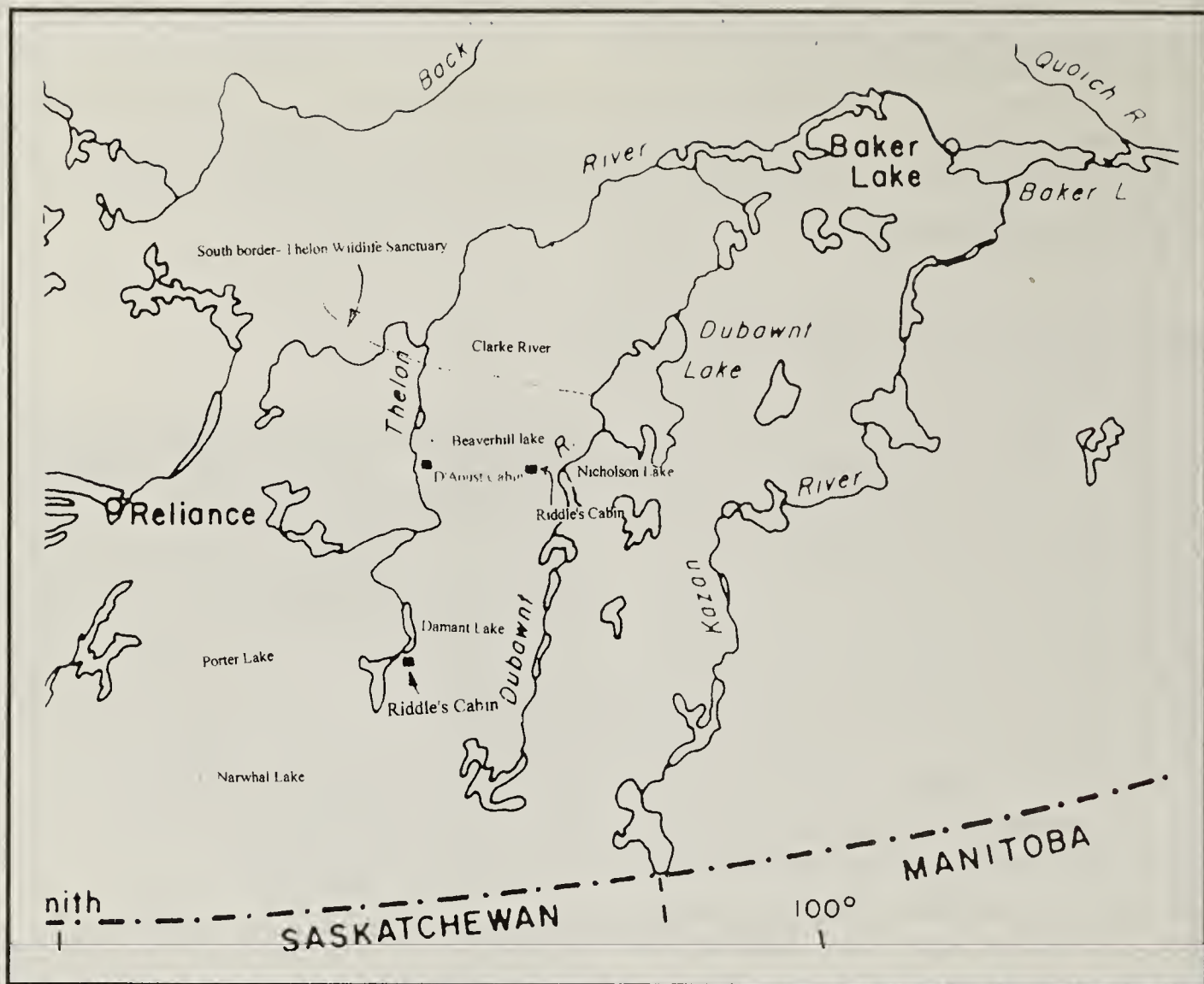
Wolf killing is disturbing to many people. So recent kills by Saskatchewan hunter's on snowmobiles, brought back memories of an earlier wolf hunter I knew. On 25 May 1977, Cyrus Fred Riddle died in the Uranium City hospital at the age of 81 years. It is unlikely that more than a handful of people even remember Fred. Yet, Fred's death was significant in several respects, not the least of which was the fact that his passing marked the end of the era of the government-paid barren ground predator hunter. Also, Fred, nearing the end of that career in the late 1960's, operated from his main cabin near the tree line in the Damant-Rennie Lake area, about 200 km north of the Saskatchewan-NWT border. Today, that same area is in the news again, again as the scene of extensive wolf hunting, only this time by means of snowmobiles and not, as in the old days by using strychnine poison.

Fred was born in Montana on 13 September 1895. From 1917-1919 he served in Europe during World War 1 as a member of a U.S. railroad artillery regiment. Fred's brothers David Richard (born in 1892) and Emmett Calvin (born in 1896) also enlisted in 1917 but both of them died in battle. In 1920 Fred came north to Edmonton where he hunted moose. He saw the shipments of Arctic fox coming out of the north and decided to become a trapper. Aside from occasional trips to visit his aged mother in Montana (Vessa Riddle died in 1962), Fred remained in the north ever since.



***Poisoned arctic fox (note blue fox),
RCMP compound, Stony Rapids, SK.
SK game officer Chick Terry (left),
with Fred Riddle.***

Fred Riddle began his trapping on Boyd, Barlow and Carey Lakes along the upper Dubawnt River, north of Stony Rapids, Saskatchewan. Later he operated out of his cabin half way between Nicholson and Mosquito Lakes, well north of the so-called treeline (although the size of his cabin logs said otherwise!). He usually trapped alone, 90 km from the nearest human beings (Gus D'Aoust, another of the predator control officers, and Delphine Lockhart, working out of their Beaverhill Lake



cabin west of Mosquito Lake and 450 km NNE of Stony Rapids). Fred covered hundreds of kilometres of trapline as far north as the southern border of the Thelon Wildlife Sanctuary, 70 km away. Several of his lines extended east-west, at right angles to the migration corridor of the Beverly Lake caribou herd. In addition to the migratory caribou, wolves and Arctic fox travelled along, as part of this mobile community. Fred also trapped wolverine, marten and otter. He exterminated the only red squirrel ever reported from that northern area after the squirrel had invaded his cabin and made a nest in one of his rolled up fishnets, chewing great holes in the process!

A major problem no doubt was the short daylight in December and January. I've often wondered how Fred could cover his traplines adequately during the dark and bitterly cold days of mid winter,

all of this without adequate maps. Although he had a few line shacks, he often camped out in his tent, undoubtedly in the small spruce clumps only he knew the location of.

In the early 1950's Fred and several other barren ground trappers were offered contracts by the Federal Government to kill wolves by means of strychnine poison. The original monthly stipend was \$450 and the predator hunter was paid one-way air transportation for himself and sled dogs to his main camp. In addition, the hunter was allowed to keep all pelts of poisoned wolves.

In contrast to many northern trappers, Fred looked after his pelts well, meticulously cleaning and combing the well-stretched pelts. His furs, sold at auction in Edmonton, always fetched top prices. Many trappers were envious of



***Fred Riddle, Nicholson Lake, NWT, holding poisoned wolverine.
Second wolverine skin nailed on cabin wall.***

the predator control officers' contracts and perhaps justifiably so. Wolves were not the only species attracted to the poisoned bison or caribou baits and, by accident or more likely by design, Riddle found that shallowly-buried strychnine cubes in the bait would readily kill Arctic foxes as well. Fred told me once that he had stopped setting leg-hold traps for fox altogether as he was taking the foxes on the baits, a much more convenient way of killing! Foxes, of course, were easy to skin and much preferred to wolves for ease of fleshing, drying, storage and transport. One day in spring 1958 when Fred returned to Stony Rapids with part of his catch, he received permission from the local RCMP to dry his fox pelts in the compound. With great audacity he hoisted his 50-60 poisoned white foxes (and a few blue foxes) up on the flagpole for all the people to see!

Many people thought of the barren ground predator control officers (as they were then called) as ruthless killers. In addition to the thousands of wolves killed on the baits, the non-target "by-

catch" consisted of foxes, wolverines, ravens, gulls, eagles, a few grizzlies, the odd Gray Jay and even the first European Starling ever recorded in the NWT fell victim to the baits. Some control officers accidentally poisoned a few of their own dogs and I know of a native trapper whose dogs were poisoned after feeding at a bait station from which the warning sign had blown away.

The best known of the predator control officers were Fred Riddle, George Magrum (his main cabin was just west of Aylmer Lake), Matt Murphy (first at Muskox Lake, later near Aylmer Lake where he lived in a sod cabin) and Gus D'Aoust (Beaverhill Lake), Wilfred McNeill (Fort Smith) and Red Noyes (Upper Taltson River), but Fred Riddle was the "greatest" of them all. For much of the time that I knew him, he was a government worker, being employed (as I was) by the Canadian Wildlife Service (CWS). He worked hard and diligently, usually under extremely difficult conditions, at the job he knew best - killing wolves. He was hired to do that

job and he did it well, and for that he cannot be criticized. Also, my migration study of tundra wolves by means of ear-tagging would not have borne fruit without the cooperation of Fred Riddle and George Magrum who took ear-tagged wolves on their poison baits and advised me of details. Hopefully though, there will never be another predator control officer like Fred Riddle.

Did the killing of thousands of wolves result in increasing caribou numbers? To my knowledge it has never been shown that there was a relationship. Caribou numbers increased after the 1960's and so did wolf numbers.

From 1961-1965 Riddle killed just over 200 wolves annually from his base camp near Nicholson Lake. He then moved his main operation to the Damant-Rennie Lake area and in winter 1965-1966 he killed 398 wolves, followed by 274 wolves the next winter. His CWS contract allowing him to use strychnine was terminated in 1968 but with Adeline Chaffee of Stony Rapids he continued to trap out of his Damant Lake cabin until shortly before his death.

We now seem to have come full circle. Caribou and wolf numbers in the NWT, at least until recently, are at satisfactory levels and killing of wolves on a large scale is again in vogue. Though strychnine is not being used this time around, the method of killing wolves (chasing them to exhaustion by snowmobiles, running them over and finishing them off by gunfire) to most people is just as obscene as poisoning them. It is illegal in most of Canada.

The Rennie-Damant-Wholdaia Lake area in most years contains parts of the Beverly Lake caribou herd, with their attendant migratory wolves, many of which were raised in dens along the Thelon River, as my 1960-1968 studies

of ear-tagged wolf pups have shown. Recent studies by the NWT government show that elements of the Bathurst herd (normally wintering in the areas north of Yellowknife) have moved southeast of Great Slave Lake. The possibility that this unusual movement is due to greatly increased industrial development disturbances in the area southwest of Bathurst Inlet (Lupin and BHP Mine exploration along with increased road construction, air and road traffic) remains a concern. It is likely that this herd's attendant wolves have moved with the caribou and, in part account for the alleged high concentration of wolves north of the Saskatchewan-NWT border. Concentrations of wolves in this area are not unusual. In March 1968 I recorded a high density of one wolf per 6.9 sq. mi. on a portion of the Beverly Lake caribou herd's winter range, a wolf density that could only occur at times of maximum compression of the prey population.

The number of animals killed as of early March 1998 has been reported as 460 wolves (the "tip of the iceberg" as one NWT biologist told me recently) but this is only the total reported by hunters operating from northern Saskatchewan. NWT resident hunters may have increased this number significantly, particularly since the caribou will remain on their winter range for much of the month of March and their attendant wolves will remain vulnerable to hunters on snowmobiles.

Will there be long lasting effects of this year's wolf hunt? I do not believe so, but if this type of hunt is carried out unregulated year after year, wolf numbers will plummet. No one knows how many wolves there are and what level of "harvesting" they can tolerate. The decline of wolf numbers will be reflected in fewer wolves being seen and photographed, among the most



Damant Lake. From right: Fred Riddle (holding wolf skulls), pilot John Langdon, Elsie Kuyt, daughter Pamela. Poisoned wolf carcasses at right.

treasured of wildlife observations made by tourists travelling down the Thelon River in summer. Alex Hall, tourist guide and expert on Thelon River wildlife saw 57 wolves along the river in 1992 but only 10 wolves in 1997. Further declines can be expected if large-scale wolf killing continues. If the Bathurst caribou herd wolves now wintering southeast of Great Slave Lake will be persecuted to the same extent as the Beverly Lake caribou wolves are, tourists at the Bathurst Inlet Lodge and associated naturalists' camps in that area will experience similar losses of wildlife experiences.

From experience I know that not all caribou shot by hunters are used by them. Wolves will find caribou before hunters can return to collect them in those instances where weather or fully loaded toboggans prevent hunters from returning to retrieve their kills. Modern hunters, using snowmobiles, could take advantage of this by simply leaving a few dead caribou on the middle of large lakes as bait to attract wolves.

One also wonders how much benefit the hunter's families derive from this non-traditional hunt and how much of the profits go towards fuel, oil and spare parts for the labouring snowmobiles.

I remember my few hours with Stony Rapids caribou hunters, sharing with them the results of their hunts. But that was 40 years ago, a different time, before the era of snowmobiles. Now I am saddened by the spectre of convoys of these machines flushing out wolves and running them to exhaustion and death. It is probably unreasonable to expect that this cruel "hunt" can be stopped, as it ideally should be. It is hoped that the hunters, governments and other stakeholders involved can mutually agree to curtail the hunt and ensure the continued presence of these fine animals for others to enjoy.

NOTES AND LETTERS

COSEWIC

From the COSEWIC Web Page at <http://www.cosewic.gc.ca>. This page lists all the species at risk considered by COSEWIC to date.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was created in 1977 as a result of a decision made at the Conference of Federal-Provincial-Territorial Wildlife Directors held in 1976 in Fredericton, New Brunswick. The committee made its first designation in April 1978, and has met annually since then. With time and experience, COSEWIC developed and periodically modified its operating procedures, the categories of risk and their definitions, and the manner in which it deals with populations. Even after nearly twenty years of existence, the committee continues to evolve and to fine-tune its operations in an effort to do its job in the best possible manner.

Because of its solid scientifically based evaluation of the national status of species, status designations are well respected. However, they have no legal standing. This means that no legal consequences flow from COSEWIC designations. Nevertheless, COSEWIC-listed species are usually accorded special consideration by range jurisdictions (the provinces and territories where they occur) and in environmental impact assessments of projects.

Originally, the wildlife directors gave COSEWIC the mandate to consider vertebrates (mammals, birds, reptiles, amphibians and fish) as well as plants. In 1994, COSEWIC's mandate was expanded to include molluscs and

lepidopterans (butterflies and moths). The first mollusc was listed in 1996, and the first lepidopterans in 1997. As well, the former plant subcommittee, now the subcommittee for vascular plants, mosses and lichens broadened its scope in 1994 and listed its first lichen in 1995, and its first moss in 1997.

To date, COSEWIC has considered 447 species, 307 of which appear on the current list of species at risk.

Although recently COSEWIC has been adding species to its list at the rate of ten to twenty species per year, this does not reflect the rate at which species are becoming at risk. Rather, it reflects the rate at which the committee is able to examine species. Over 600 additional species within the taxonomic groups that are currently considered by COSEWIC require attention. Numerous other species in other taxonomic groups will eventually have to be addressed as well.

MOCKINGBIRD AT ROSTHERN

VICTOR C. FRIESEN, P.O. Box 65, Rosthern, SK S0K 3R0

When in 1964 Brazier listed 48 Saskatchewan sightings of the Northern Mockingbird (*Mimus polyglottos*), mostly from the previous 10 years, it seemed that the mockingbird would become established in our province.¹ This has not occurred, the bird remaining, according to Smith, a "rare summer resident or transient."³ And almost all of the records till now are for the southern part of the province, with only one originating north of Rosthern.

Then 16 June 1997, I was awakened by an early morning telephone call from Jake and Mary Neudorf, who farm three miles NW of town. They had been trying to contact me for the past two days to report a mockingbird on their yard. (I had been away at our Nature Saskatchewan's Summer Meet meanwhile to scout for birds in the Cypress Hills.)

I spent two hours with the Neudorfs that same morning. The mockingbird, obviously a male, sang constantly—from the housetop, a leafy tree, the garage roof, the washline. The Neudorf yard has a variety of trees and hedges, attracting many birds, as do the feeders and birdhouses. Thus the recent arrival always seemed to have other birds about—a bluebird sharing the washline, a chickadee flitting by, or a swallow buzzing him. The mockingbird paid them no heed but kept on singing—and singing.

The bird stayed exactly one week, leaving 20 June, apparently unable to attract a mate.

Following the bird's departure, I checked an anthology of "ornithological

prose" and found these apt comments on our visitor by pioneer birder Thomas Nuttall². Writing in the nineteenth century, this friend of Audubon refers to the mockingbird's motions as "perpetually animated" as he "spreads and closes his light and fanning wings, expands his silvered tail." The bird has "an Orphean talent,; his notes "distinguished by the rapidity of their delivery." "Even the hours of night," Nuttall continues, "he oft employs in song, serenading the silent cottager to repose."² Mary Neudorf might have a quibble with this last statement. Our mockingbird's singing kept her awake one night till 4:30 am.

1. BRAZIER, F.H. 1964. Status of the mockingbird in the northern Great Plains. *Blue Jay* 22:63-75.

2. NUTTALL, Thomas. 1939. Mockingbird. In a gathering of birds (D.C. Peattie, ed.). Dodd, Mead and Company, New York.

3. Smith, A.R. 1996. Atlas of Saskatchewan birds. Spec. Pub. No. 22, Sask. Nat. Hist. Soc., Regina, SK.

HERRING GULL HARASSES AMERICAN AVOCET

WILLIAM H. KOONZ, Department of Natural Resources, Box 24, 200 Saulteaux Cr., Winnipeg, MB, R3J 3W3

On 4 June 1998, Dr. Robert Jones and I were evaluating Piping Plover (*Charadrius melodus*) nest initiation on West Shoal Lake, some 40 kilometres northwest of Winnipeg, Manitoba. Lake water levels were high, at least 1m above those of the 1980's. I waded out to three islands that had been part of the main plover nesting peninsula throughout the 1980's. No plovers were seen there but two islands contained Ring-billed Gull (*Larus delawarensis*) colonies totalling just over 600 nests. During my return to shore, I witnessed the aerial harassment of an adult American Avocet (*Recurvirostra americana*) by a Herring Gull (*Larus argentatus*).

The event took place along the lakeshore and at times some distance inland over lightly forested areas. The gull appeared to attempt to force the avocet down either into the water or onto the ground. It continually approached the avocet from above and behind. The avocet eluded the gull by making sharp turns or by flying through breaks in woody shoreline vegetation. When the gull misjudged the avocet's manoeuvre and lost distance, it flew some distance into the air and quickly overtook the apparently tiring, slower, avocet.

I do not know how long the harassment continued nor its outcome but it was ongoing for at least 15 minutes. The two birds manoeuvred along the shoreline to the south then northwest until I could no longer see them with my binoculars.

Herring Gulls are opportunistic and take many types of prey by a number of methods.² Pellets from some incubating great lakes Herring Gull colonies contained as high as 7% adult birds including Northern Flickers, American Robins, Red-winged Blackbirds, Blue Jays and Downy Woodpeckers.¹ This report did not provide information on how those food items were obtained, e.g. captured live or scavenged. Nesting Herring Gulls on Great Island, Newfoundland typically specialized on human refuse, blue mussels or adult Leach's Storm-Petrels. These were the only three food items making up over 1% of the materials teased from pellets found on the nesting colony.² How Leach's Storm-petrels were obtained was not mentioned. No mention of aerial harassment was made in The Birds of North America account of the Herring Gull.³ Dr. Brian Knudsen (pers. Comm.) indicated that he had received second-hand information that Herring Gulls were able to capture and kill adult shorebirds which had been netted for banding. These birds were attacked from atop the release shed in which banding, streamer attachment and handling took place (banded shorebirds were released out a port which was some distance from the ground; Herring Gulls perched on top of the building and dove to capture shorebirds shortly after release). I have seen Herring Gulls attack the unprotected eggs and young of colonial nesting waterbirds, pluck young ducks and grebes from the water and take live rodents attempting to escape fires, but this was my first



Avocet

By Koonz

experience viewing one attacking an adult bird in flight. What was most interesting was how long the attack was sustained and how far the predator would get from its prey, only to quickly close the distance and resume the chase.

The Herring Gull has been able to adapt to human altered landscapes, recently expanding its range southward.³ Its adaptability in food use may have enabled it to expand its range. It will be interesting to see if Herring Gulls continue to expand their range and if they play a role in the decline or range shifts of traditional species in areas that they expand into.

1. FOX, G.A., L.J. ALLEN, D.V. WESELOH and P. MINEAU. 1990. The diet of herring gulls during the nesting period in Canadian waters of the Great lakes. *Can. J. Zool.* 68: 1075-1085.
2. PIEROTTI, R. and C.A. ANNETT. 1991. Diet choice in the herring gull: constraints imposed by reproductive and ecological factors. *Ecology* 72 (1): 319-328.
3. PIEROTTI, R.J. and T.P. GOOD. 1994. Herring gull (*Larus argentatus*). *In* The Birds of North America, No. 124 (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.



Of the 27 orders of birds 15 live in the prairies.

POSSIBLE SIGHTING OF LESSER GOLDFINCH

JOHN DOUGLAS, Box 602, Maple, Creek, SK S0N 1N0

I published a note in the *Maple Creek News* on 8 September 1998, headed 'Unusual sighting in Maple Creek. Wayne C. Harris, regional biologist, sent a copy to Dr. Stuart Houston and he has encouraged me to submit my observation to *Blue Jay*. The following is a slightly augmented version of what appeared in the weekly newspaper here.

While I was driving home one afternoon in mid-August 1997, I spotted a small flock of goldfinches, feeding on the seeds of wild sunflowers at the edge of the road. Then I noticed one of them looked as if he had been dipped in green paint, and a couple more had a greenish tinge. I know that female and young American Goldfinches can have a faint greenish tinge, but this one bird was really green!

When we got home, my wife and I looked up the green bird in our *National Geographic Society Field Guide to the Birds of North America*. The only bird it

resembled was a Lesser Goldfinch (*Carduelis psaltria*). However, this bird's normal range is quite a bit further south in the States. I suppose this a possible example of wandering migrants than can occur in the spring and fall. The 7th edition of the *A.O.U. Check-List of North American Birds* (1998) states that the Lesser Goldfinch is "Casual or accidental in British Columbia, Montana, southwestern South Dakota. . . ."

Another day when I was driving I spotted a Northern Harrier, commonly known as a Marsh Hawk, perched on a fence. As I passed, it flew and kept pace with my car as I slowly drove along. It continued to fly 30 to 40 feet to the side of me for two miles over an area of grass and weeds. Then it hovered, and dove. I stopped the car and saw the hawk had made a kill. It was apparently used to vehicles stirring up small game on the prairie. I thought this was an example of smart hunting.



A Bishop in 1555, insisted that northern species roosted in reed beds over winter. His theory was the birds would sit in the reed beds gradually sinking into the mud until they finally just fell asleep.

POSSIBLE LITTLE BLUE HERON SIGHTING

WILLIAM ROBERTSON, 712 11th Street East, Saskatoon, SK S7N 0G5

On Friday, 24 July 1998, I was making a quick trip out to St. Peter's Abbey from Saskatoon and saw a curious sight. Just a few kilometres west of Humboldt on Highway 5, at approximately 5:15 p.m., I saw what looked to be a miniature Great Blue Heron (*Ardea herodias*) in a water-filled ditch on my right-hand side. It was close enough in detail to what I know to be the Great Blue that I even remarked to my 14-year-old son, "Look, there's a Great Blue Heron." As I drove on, I became troubled by its size and thought it sure wasn't very "Great." It also did not have the white cap which one can sometimes see on the Great Blue, though it certainly was a slaty blue in

colour. But I was busy and drove on.

A week later, after seeing numerous hawks in the Cypress Hills area, I sat down with my Peterson's Field Guide to Western Birds and stumbled across herons. There was the Little Blue (*Egretta caerulea*) matching what I saw, particularly with regard to size. When I looked at the "Where found" section and saw E. U.S. south to Peru I was prepared to revise my notion of what I'd seen, until I read the "casual straggler" part that listed numerous southwestern U.S. states and Saskatchewan. Now I was prepared to believe that I may have seen a Little Blue Heron.

The fact that a flower is showy does not guarantee that it will attract butterflies. Peonies, gladiolus, nearly all roses, and most fancy double blossoms are all but useless for the purpose. A homely dandelion is worth any number of expensive roses in the butterfly garden.



The Ruby-Throated Hummingbird flies approximately 25 feet above land or water at speeds of 30-40 mph while migrating.

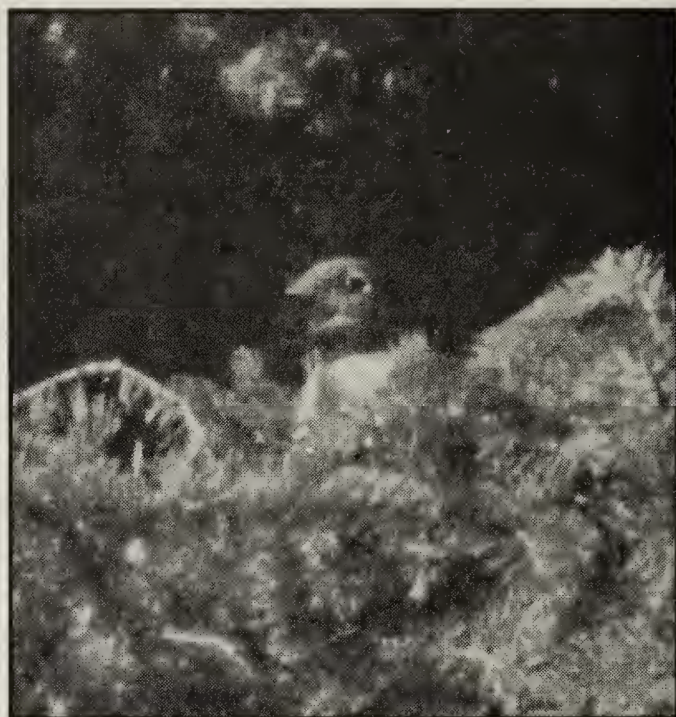
BONAPARTE'S GULL NEST NEAR SPEERS

CHUCK STRAUTMAN, Box 70, Speers, SK S0M 2V0

On 3 June 1997, I was helping my daughter-in-law, Janice, at Ed and Janice's farm, 10 miles north and two miles west of Speers, on the southeast quarter of section 12, township 45, range 12, west of the 3rd meridian. While planting her garden, we were entertained by a weird croaking gull that was sitting on the yard transformer pole. It looked somewhat like a Franklin's Gull (*Larus pipixcan*) or a Laughing Gull (*Larus atricilla*). Janice said, "That bird has been building a nest in a spruce tree, thirty yards from the back door of the house." I checked her report; it was correct. The gull was nesting on a horizontal branch of a spruce tree, about ten feet above the ground and four feet from the trunk. When we approached the tree, the adult gull really made a racket. No early morning alarm clock was needed in the house, as each dawn this pair chattered continually. I took two pictures of the gull sitting on her nest.

About three days after the eggs hatched, the mother bird must have dropped or nudged two young gulls to the ground, and began taking them to a large slough about 500 yards from the house. As my son Ed was crossing the yard he noticed the two little yellow balls of fluff. He went to check, but the adult gull did a good job of trying to attack him and defend her young. He left them alone and they eventually reached the water.

In 1998, two year-old Bonaparte's Gulls (*Larus philadelphia*) appeared at the farm, but not in full adult plumage; each still had a black spot behind the eye. Two adults were with them, but I was unable to locate their nest.



Bonaparte's Gull near Speers

In checking a book about gulls, I found that the Bonaparte's Gull normally nests in spruce trees in northern Saskatchewan, but not as far south as Speers.

I contacted Dr. Houston and forwarded the photographs. He confirmed my identification of a Bonaparte's Gull, and informed me that at this longitude this is the farthest south nest record on a tree limb. In the 1930s Bonaparte's Gulls were found and painted by the late R.D. Symons, nesting just above water in dead bulrushes (as Franklin's Gulls regularly do) in Lamotte's Swamp, in a dilatation of Jackfish Creek, north of Jackfish Lake (Symons, *Blue Jay* 26:70-74, 1968). Lamotte's Swamp is only about 36 miles west and 26 miles north of the Strautman farm. Dr. Houston was also unable to find any reference in the literature to young Bonaparte's Gulls leaving tree nests in the downy stage and walking such a distance to water.

ADDITIONS AND CORRECTIONS

I received the following update to THE SASKATCHEWAN CONSERVATION DATA CENTRE: A BRIEF INTRODUCTION AND PROGRESS SUMMARY REPORT by *James R. Duncan* (56:3: 189 - 190). The current staff and contact information for the Saskatchewan Conservation Data Centre are as follows:

Saskatchewan Conservation Data Centre #326, 3211 Albert St. Regina, SK S4S 5W6 www.unibase.com/~biodiversity	Jeanette Pepper Zoologist 787-7197 jpepper@unibase.com jeanette.pepper.erm@govmail.gov.sk.ca
Marlon Killaby Coordinator 787-5021 mkillaby@unibase.com marlon.killaby.erm@govmail.gov.sk.ca	Jeff Keith Information Manager 787-7196 jkeith@unibase.com jeff.keith.erm@govmail.gov.sk.ca
Sheila Lamont Botanist 787-7198 slamont@unibase.com sheila.lamont.erm@govmail.gov.sk.ca	Ann Gerry Vegetation Ecologist 787-1835 agerry@unibase.com ann.gerry.erm@govmail.gov.sk.ca

In the article, OBSERVATIONS OF REPTILES AND AMPHIBIANS AND THOUGHTS ON CONSERVATION IN PRAIRIE CANADA by *Josef K. Schmutz, and June Picotte* (56:3: 169 -182), Table 1 was inadvertently omitted. It is given below. We apologize to the authors for this oversight.

Table 1 (Following Page). The location of snake sightings and prey consumed are shown in relation to habitat. Soil type (brown chernozemic [BC], brown solonetzic [BS] and regosolic [R]), and parent material are indicated.^{1,33} "Roadside" refers to roads built up and with ditches.

No. ¹	Date/Season	Site/Vegetation	Soil/Landform	Land Use	Prey
RATTLESNAKE					
1	pre-1987	Near farm	BC: sandy loam	Grain	?
2	2 July 1987	Gravel road	BC: clay	Grain & grazing	None
3	1988-89	Dry mixed grass	R: sand hills	Grazing	Ground squirrel
4	Oct. 1991-93	Dens, N of Red Deer River	R: loam outcrop	Grazing	None
5	15 July 1997	At farmstead	BS: clay	Grain	None
HOGNOSE SNAKE					
6	Autumn 1976	Mixed grass & Chokecherry	R: sand hills	Grazing	None
7	Spring 1977	Roadside	BC: loam	Grain & grazing	None
8	July 1977	Roadside	BC: sandy loam	Grazing	Toad
9	Late May 1982	Mixed grass & Chokecherry	R: sand hills	Grazing	None
10	Late Aug. 1983	Roadside	BC: loam	Grain & grazing	None
11	July 1977	Mixed grass & Chokecherry	R: sand hills	Grazing	Toad
12	July 1987	Mixed grass & Chokecherry	R: sand hills	Grazing	None
13	1988	Mixed grass	BC: loam	Grazing	Toad
14	Late April 1988-89	Mixed grass	BC: loam	Grazing	None
15	1985 - 87	Mixed grass	BC: loam	Grazing	None
16	1985 - 87	Mixed grass	BC: loam	Grazing	None
17	20 July 1990	Mixed grass & Chokecherry	R: sand hills	Grazing	None
BULLSNAKE					
18	June 1975	Mixed grass & Chokecherry	R: sand hills	Grazing	Barn swallow
19	June 1984	Mixed grass & Chokecherry	R: sand hills	Grazing	European starling
20	June 1986 or '87	Mixed grass & Chokecherry	R: sand hills	Grazing	Rabbit

¹Sightings made by: Bob Holt (#1), Name unknown (#5), Bill Picotte (#s 14-16), June Picotte (#s 3, 6-13, 17-20), Joe Schmutz (#2), Cleve Wershler (#17), Dan Wood & Frank Spath (#4)

NORTHERN SANDSCAPES - EXPLORING SASKATCHEWAN'S ATHABASCA SAND DUNES

by Robin and Arlene Karpan Parkland Publishing, Saskatoon 29.95 (soft cover)

Some of us feel simply too busy, too economically constrained, or too out-of-shape to consider a northern wilderness trip. However, if you have never been to the Athabasca Sand Dunes here is the easiest way to visit a stunningly beautiful area located along the south shores of Lake Athabasca in northern Saskatchewan. Photographers and travel-writers Arlene and Robin Karpan have produced a collection of 115 very beautiful photographs of the dunes, gently laced together with stories of their travel through the area by canoe.

Written in the first person, in a conversational style for a general audience, this book eloquently describes the dunes, the authors' travel route, and offers tips on where to obtain maps and other information about travelling in this area which is now protected as a Saskatchewan Provincial Wilderness Park. With over 50 percent of the 128 pages taken up by images of impeccable quality and composition, the overall "feel" of this book is a luxurious photographic feast over light, almost incidental conversation about local landscape, plants, wildlife, history - largely from a personal, experiential point of view. It is an engaging and easy read and I highly recommend it.

To be sure, this is not intended as a guidebook to the area's plants, animals or ecosystems. Of these, the authors do introduce the Park's endemic plant

species, but of the ten endemics in total, only four are discussed in the text and photographs included of only six. (Unfortunately, and not the fault of the authors, the photograph at the top of p.35, identified as being of the COSEWIC-listed Tyrrell's willow is actually of another much more abundant endemic named Turnor's willow). Likewise, reference to mammals is largely restricted to tales of close encounters with moose and bears, and of birds to a dozen or so sightings en route. Of definite value to some readers are three checklists offered in the Appendix: one each for the Park's rare plants, birds and mammals.

Considering the authors' "hope that our book will help foster an appreciation of this special place, and that those who travel there will be aware of its fragile nature and the need to tread lightly," I regret not finding a chapter, or even an appendix, on responsible camping ethics and zero-impact travel and camping techniques.

As an introduction to one of Saskatchewan's most spectacular and fascinating wilderness ecosystems, take time out for this very fine publication. The Karpans deserve applause for their interest in connecting people with wilderness landscapes and for the very high quality of this publication.

Peter Jonker is Coordinator of

Environment, Science and Technology Programs, U of S Extension Division; he has conducted annual ecology immersion camps in the dunes each summer since 1991.

Reviewed by Peter Jonker, University of Saskatchewan, Saskatoon SK.



Snow Geese

Ralph Grosse

IN MEMORIAM

DONALD STEWART MCROBBIE, 1929 - 1998

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK S7N 0J8

Don McRobbie passed away suddenly (at a stop light!) on 11 April 1998 at age 68. He was born in Saskatoon on 29 September 1929, attended King Edward School and City Park Collegiate, and then the University of Saskatchewan, where he obtained his B.S.P. in 1952. He worked for Rogers' Drug Store on Broadway, then for McBain's Drug Store, and finally as a pharmacist at Saskatoon City Hospital. He retired in 1989 after 24 years service. For the hospital pharmacists of Saskatchewan he was unofficial historian and treasurer for 15 years.

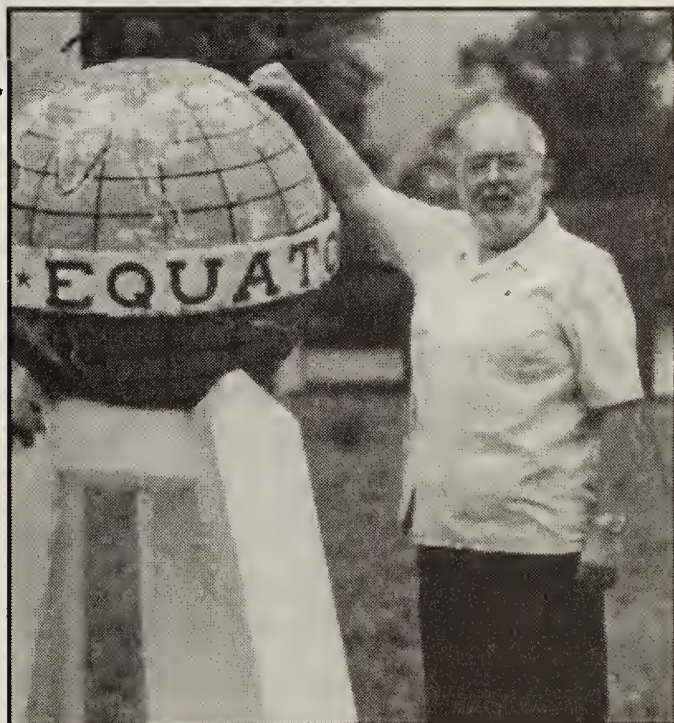
Both before and after retirement, he and Jo made some great trips together, to Africa, Europe and Asia and all over North America, from Labrador and Newfoundland to Alaska, 17 of them with Elderhostels. Don and Jo also took part in the Thursday all-day outings with the Golden Eagles. In spite of diabetes and heart problems and with full knowledge that he was living on borrowed time, Don and Jo resolved to live life to the full; they returned from a superb trip to Thailand and Indonesia only six days before he died.

Don was a keen member of the Saskatoon Natural History Society for 28 years. Always cheerful and willing, he and his wife Jo took part in every Boxing Day bird count and some spring counts, contributed field sighting cards, and presented slides at many a Members' Night. It is a measure of his

loyalty that, almost at odds with his self-effacing nature, he agreed to become Vice-President of the Saskatoon NHS in 1974, President in 1975 and 1976 and Past-President in 1977 and 1978. His oldest children, Elizabeth and Norman, were members of the Saskatoon Junior Natural History Society, of which Elizabeth was co-chairman in 1974, when there were 28 active junior members. On his retirement from the hospital, Don undertook an important task for the Saskatchewan Natural History Society; he took over management of the Blue Jay Bookshop for 2½ years. Don was keenly interested in books, stamps, and gardening.

Don's great smile and modest nature will be missed.

C. Stuart Houston



Donald McRobbie

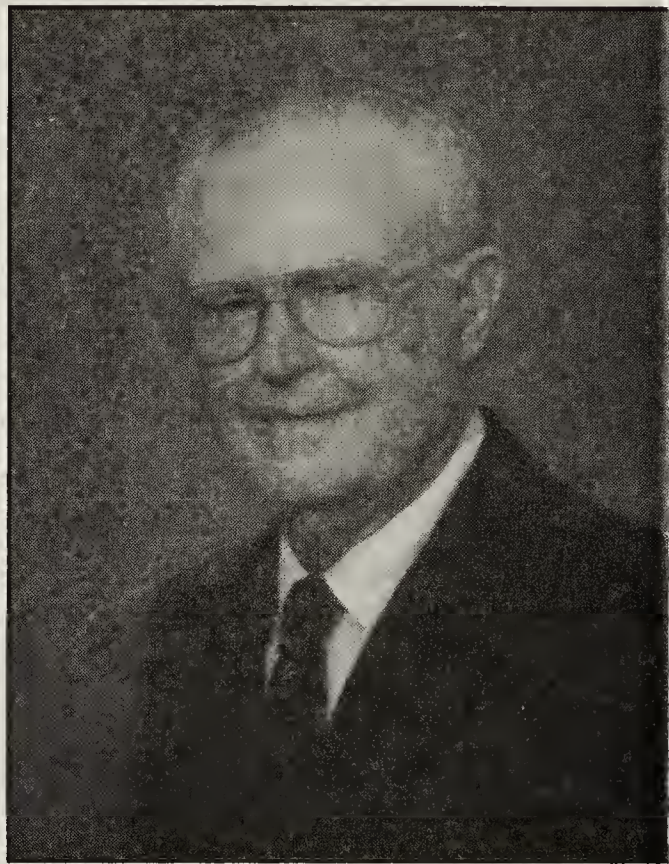
IN MEMORIAM: JEROME H. STOUDT, 1910 - 1996

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK S7N 0J8, and
ALEXANDER DZUBIN, 2410 York Ave., Saskatoon, SK S7J 1J5.

Jerome H. Stoudt was among the pioneering group of dedicated American wildlife biologists who made significant contributions to the knowledge of waterfowl and wetland ecology of western Canada.

Jerry was born on 24 February 1910 in Hastings, Minnesota, where he graduated from high school in 1927. He was among the first to graduate from the University of Minnesota with a Bachelor of Science in Forestry and Wildlife Management (1931) and a Master of Science in Wildlife Management (1940). For his thesis he developed a system for inventorying duck populations and production — and continued these waterfowl censuses near Cass Lake, Minnesota, for nearly 20 years. He also devised a widely-used system of ageing broods by dividing them into three classes.⁶

Jerry joined the U.S. Fish and Wildlife Service in 1942, and managed, in turn, new wildlife refuges at Horicon (Wisconsin), Upper Mississippi (Minnesota), and Sand Lake (South Dakota), before becoming Flyway Biologist at Aberdeen, South Dakota in 1948. In 1952 he began 15 consecutive years of waterfowl studies in parkland at Redvers, southeastern Saskatchewan, and in 1963 a 10-year study of canvasbacks at Minnedosa, Manitoba. The two studies overlapped from 1961 through 1965. He transferred to the Division of Wildlife Research in 1958, and in 1963 he was assigned to the newly established Northern Prairie Wildlife Research Center at Jamestown,



Jerome H. Stoudt

North Dakota. He received a Merit of Outstanding Service award from President Nixon, and retired in 1973. He moved to his retirement home in Bella Vista, Arkansas, but also maintained Bear Lodge Camp for hunting in Wyoming, from 1959 through 1995. He died 5 September 1996 in Bella Vista, Arkansas. His funeral service and burial were in his home town of Hastings, Minnesota.¹

Jerry recognized the importance of long-term ecological studies in the prairie region, measuring waterfowl numbers and productivity through a series of wet and dry cycles and changing land-use programs. He pioneered the use of Labrador retrievers to capture ducklings and moulting adults.

during summer banding operations. "Dogs are usually referred to as man's best friend, but Jerry was really his dogs' best friend and constant companion."¹

In addition to a number of reports dealing with the Dakotas and Minnesota, beginning in 1937, Jerry published seven valuable long-term studies dealing with Western Canada. The most important of these are "Ecological factors affecting waterfowl production in the Saskatchewan parklands", summarizing his findings at Redvers,⁵ and Habitat use and productivity of canvasbacks in southwestern Manitoba, 1961-72."⁶ In addition to his publications,^{2,3,4,5} more detailed unpublished annual reports, which give phenology and water conditions, are also in the library of the Prairie and Northern Wildlife Research Center in Saskatoon. Jerry noted at Redvers that snowshoe hares reached high populations only in 1952 and 1953, that red foxes were rare in 1952, but had become abundant by about 1960, that raccoons were completely absent during the first ten years, were first seen in 1960,⁴ and became common by the late 1960s, and that crows decreased drastically during the drought of 1959-1963.⁶

The Redvers study area was L-shaped, one-eighth of a mile wide and 40 miles long,⁴ extending east from Manor and then north from Redvers,³ almost to Fairlight. Most ponds dried up in 1959 and only ten held water at the driest point, 10 July 1961, but conditions improved until by 10 May 1964 there were 574 potholes in the 5-square-mile study area.⁴ In those years the land surrounding the ponds was 58% cultivated and 31% in pasture. Just over half (52%) of the wetlands had wholly or partially wooded borders.²

Peak waterfowl production years were

1952 and 1953, with 249 and 246 broods, respectively, or about 50 broods per square mile. During those two years, Mallards formed 44% of the breeding duck population, followed by Blue-winged Teal (24%), Northern Pintail (10%), and Green-winged Teal (6%).⁴ Jerry located 1942 mallard nests with an average clutch of 8.4 eggs and initial 31% nest success (over 40% if renestings are included).³ A mean of 6.0 Mallard young survived to achieve nearly full growth (class 3). Predation accounted for 92% of all nest losses, including 38% by striped skunks, 39% by crows and magpies combined, and 7% by ground squirrels.⁴ Predation by the red fox also became more and more serious, but difficult to measure accurately because the incubating duck was usually carried off by the fox. The fox population had increased after a '1080' program of coyote extermination that ended in 1952.

Because they ate ducks or eggs, Jerry developed an intense hatred of red foxes, coyotes, raccoons, and crows. Raccoons were especially destructive in his Minnedosa study area, where Canvasback nest success fell to an all-time low of 8% in 1968; raccoons were responsible for 56% of nest losses, or 64% of those lost to predation, 1961-1972.⁵ In contrast, at Redvers, Canvasback nest success was 70%.

Jerry was a kind, tolerant, perceptive, optimistic man with a great curiosity and a deep, personal understanding of basic biological principles, the need for quality habitat to support wildlife populations, and the role of hunting in wildlife management. While he worked himself and his assistants very hard, he was a good listener, a staunch supporter and a congenial companion. Those privileged to have known this grand gentleman of the old school of wildlife management are most fortunate.

Acknowledgements

We wish to thank Harvey K. Nelson for the Stoudt portrait and for allowing us to quote extensively from his funeral tribute and from "Our Respects: Jerome H. Stoudt."¹ J.B. Gollop and H.M. Reeves offered constructive criticism.

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